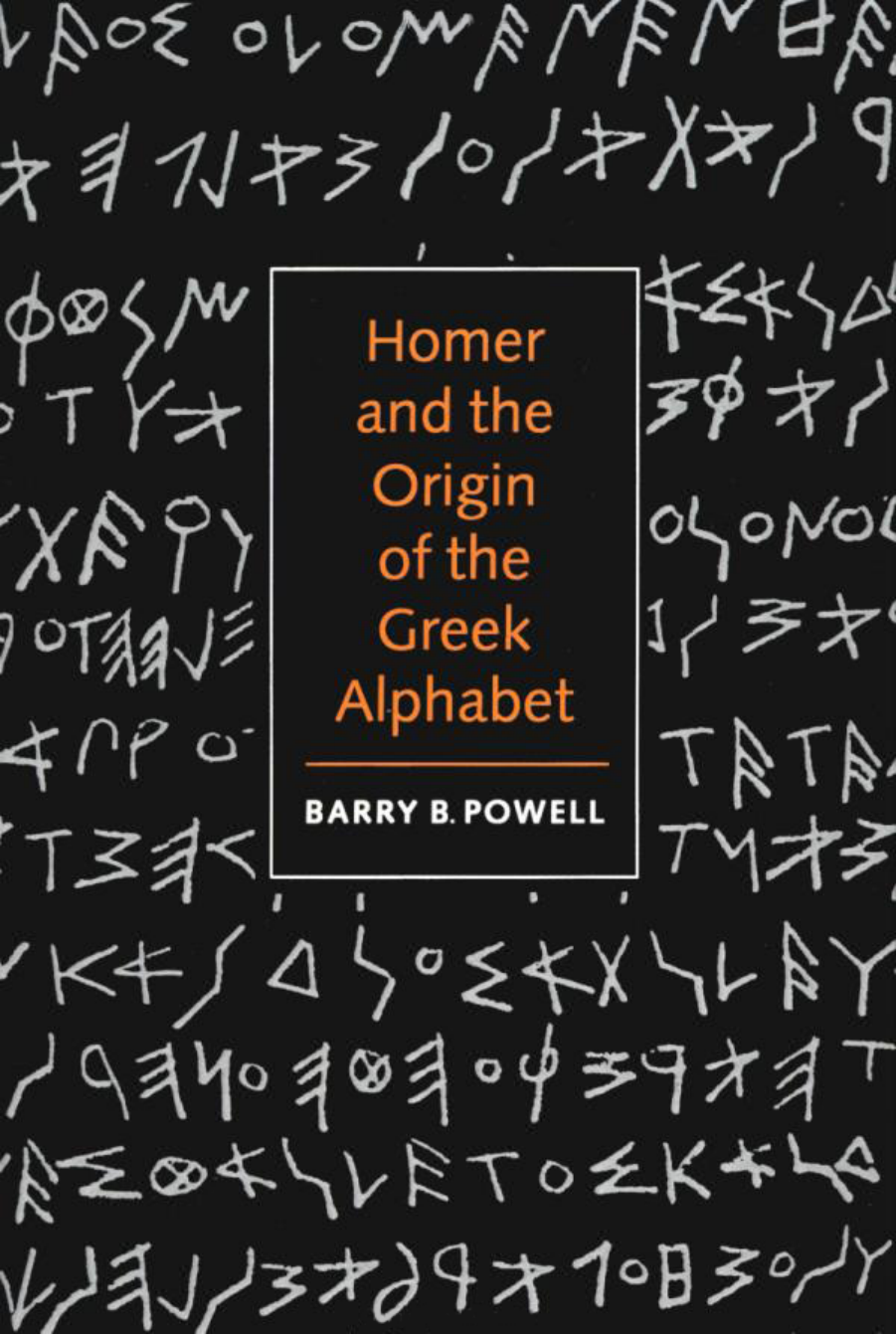
Homer
and the
Origin
of the
Greek
Alphabet
BARRY B. POWELL

Homer and the origin of the Greek alphabet

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JOE FONTENROSE

in memoriam

We must always reckon in the case of all great cultural achievements with the decisive intervention of men of genius who were able either to break away from sacred tradition or to transfer into practical form something on which others could only speculate. Unfortunately, we do not know any of the geniuses who were responsible for the most important reforms in the history of writing. (I. J. Gelb, 1963: 199)

Among the facts of early Greek history the rise of the Greek Epic, and in particular of the *Iliad*, has a place of evident importance. But to the historian's question "how exactly did it happen?" no quite confident answer has yet been given. (H. T. Wade-Gery, 1952: 1)

...once I saw a man from Plav who had such interest to learn a song when some singer sang it that he wrote it down and took it and read it to them in Plav. (Salih Ugljanin, a Yugoslav guslar, in Parry–Lord–Bynum, eds., 1953: 383)

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ABBREVIATIONS

For full citation of bibliographic entries in text, see Bibliography.

AA *Archäologischer Anzeiger*
AJA *American Journal of Archaeology. The Journal of the Archaeological Institute of America*
AM *Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung*
AnalOr *Analecta Orientalia*
AO *Archiv Orientální*
ArchCl *Archeologia Classica*
ArchHom F. Matz and H. G. Buchholz, eds., *Archaeologia Homerica* (Göttingen, 1967–)
ASAtene *Annuario della Scuola Archeologica di Atene e delle Missioni Italiane in Oriente*
AZ *Archäologische Zeitung*
BASOR *Bulletin of the American Schools of Oriental Research*
BCH *Bulletin de correspondance hellénique*
BonnJbb *Bonner Jahrbücher des Rheinischen Landesmuseums in Bonn und des Vereins von Altertumsfreunden im Rheinlande*
BPW *Berliner philologische Wochenschrift*
BSA *The Annual of the British School at Athens*
CA *Classical Antiquity*
CAH *Cambridge Ancient History*
CIE *Corpus Inscriptionum Etruscarum* (Leipzig, 1893–)
CIS *Corpus Inscriptionum Semiticarum* (Paris, 1881–)
CP *Classical Philology*
CQ *Classical Quarterly*
CR *Classical Review*
CRAI *Comptes rendus des séances de l'Académie des Inscriptions et Belles-lettres*
DGE E. Schwyzer, ed., *Dialectorum Graecarum exempla epigraphica potiora*[3] (Delectus inscriptionum Graecarum propter dialectum memorabilium) (Leipzig, 1923; reprinted Hildesheim, 1960)

DR Donner, H., and W. Röllig, *Kanaanäische und aramäische Inschriften* (Wiesbaden, 1962–4)
EG I M. Guarducci, *Epigrafia Greca* I (Rome, 1967)
FGrHist F. Jacoby, *Fragmente der griechischen Historiker* (Berlin, 1926–58; reprinted and augmented Leiden, 1957)
FHG K. Müller, *Fragmenta Historicorum Graecorum* (Frankfurt-am-Main, 1975; reprint of 1841–1938 editions)
GRBS *Greek, Roman, and Byzantine Studies*
GrGr E. Schwyzer, *Griechische Grammatik* I[4], in *Handbuch der Altertumswissenschaft* (ed. W. Otto), 2.1.1 (Munich, 1968)
HSCP *Harvard Studies in Classical Philology*
ICr *Inscriptiones creticae*
ICS O. Masson, *Les inscriptions chypriotes syllabiques: Recueil critique et commenté* (Paris, 1961)
IG *Inscriptiones graecae*
JAOS *Journal of the American Oriental Society*
JdI *Jahrbuch des deutschen Archäologischen Instituts*
JEA *Journal of Egyptian Archaeology*
JHS *Journal of Hellenic Studies*
JNES *Journal of Near Eastern Studies*
LSAG L. H. Jeffery, *The Local Scripts of Archaic Greece* (Oxford, 1961)
LSJ H. G. Liddell, R. Scott, H. S. Jones, *A Greek–English Lexicon* (Oxford, 1968)
MemLinc *Memorie. Atti dell' Accademia Nazionale dei Lincei, Classe di scienze morali, storiche e filologiche*
MusB *Musée Belge*
MusHelv *Museum Helveticum*
NJbb [*Neue*] *Jahrbücher für Philologie und Pädagogik*; *Neue Jahrbücher für das klassische Altertum*; *Neue Jahrbücher für Wissenschaft und Jugendbildung* (the three being a continuous series)
n.d. no date of publication given
n.s. new series
no. number
OJA *Oxford Journal of Archaeology*
PP *La Parola del Passato*
Prakt. Πρακτικὰ τῆς ἐν Ἀθήναις Ἀρχαιολογικῆς Ἑταιρείας
RA *Revue archéologique*
RBPhil *Revue belge de philologie et d'histoire*
RE Pauly–Wissowa, *Real-Encyclopädie der klassischen Altertumswissenschaft*
REA *Revue des études anciennes*
RendLinc *Atti dell'Accademia Nazionale dei Lincei. Rendiconti*
RhM *Rheinisches Museum für Philologie*
RivIstArch *Rivista dell'Istituto Nazionale d'Archeologia e storia dell'Arte*

RivStorIt *Rivista storica italiana*
RPhil *Revue de philologie, de littérature et d'histoire anciennes*
SEG *Supplementum epigraphicum graecum*
SIG^3 W. Dittenberger, *Sylloge Inscriptionum Graecarum*^{3} (Leipzig, 1915–24)
SMEA *Studi micenei ed egeo-anatolici*
StEtr *Studi etruschi*
TAPA *Transactions of the American Philological Association*
WS *Wiener Studien*
YCS *Yale Classical Studies*
ZDMG *Zeitschrift der Deutschen Morgenländischen Gesellschaft*
ZPE *Zeitschrift für Papyrologie und Epigraphik*

A NOTE ON TERMS AND PHONETIC TRANSCRIPTIONS

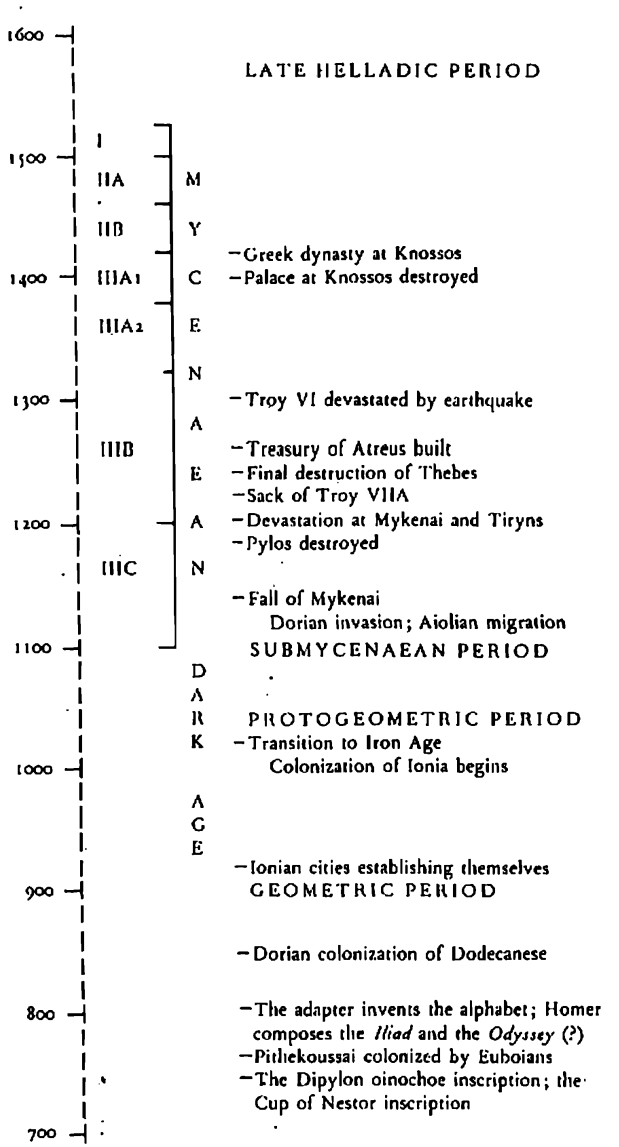
A classicist whose interests are primarily literary or historical is likely to find discussions of linguistic data perplexing. Terminology applied to writing can also be confusing. In 'Definitions' at the end of the book, after Appendix II, I give definitions of terms that my own experience shows need them. I have not hesitated to repeat definitions there that are given in the text.

Although there is a standard language for describing language and, to a less degree, writing, there is no standard system of phonetic transcription. The International Phonetic Alphabet (IPA) is often advocated as a desirable standard, but different traditions of language study have evolved their own traditional symbol systems, which are not easily abandoned. For example, in Semitic studies the glottal stop is represented by the sign "ʾ" whereas Egyptologists represent the same phoneme as "ꜣ." In classical studies, phonetic transcriptions, as of Linear B or Cypriote writing, are given in Roman characters that represent "standard" English, equivalent to southern British English. Reduction of all phonetic representations in the interests of consistency to the signs favored by IPA violates the claims of different traditions and clarity within each of them.

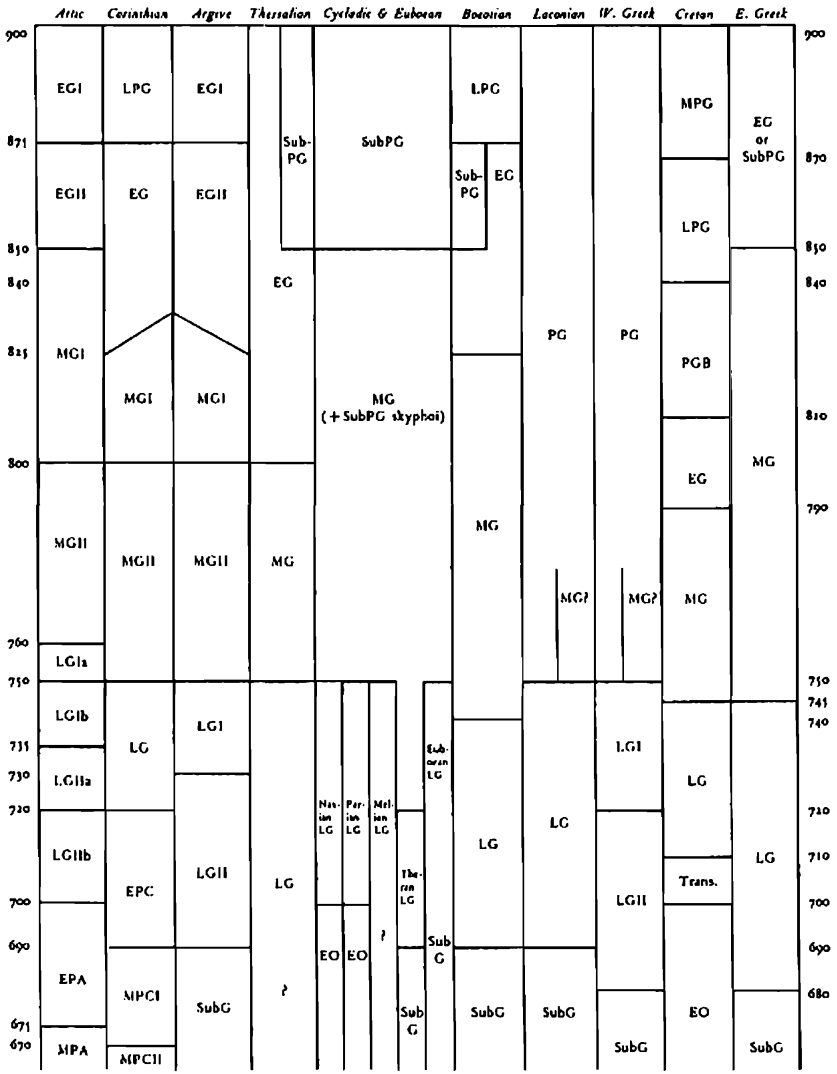
There is no good solution to this dilemma. In this book I adopt, in general, the traditional systems of symbolic transcription – Semitic, Egyptological, classical – that one might expect to find within each separate field. I will define my usage as I go. I will enclose symbols that refer to phonemes (sounds that determine meaning within a single language) within slashes / /; symbols that refer to phonetic sounds (the universal sounds of human languages) I will enclose within brackets [ ]. Any other use of a sound symbol I will indicate by italics.

On the whole I follow the usual conventions in transliterating from the Greek, although, because of the topic, I have been more conservative than many.

CHRONOLOGICAL CHARTS

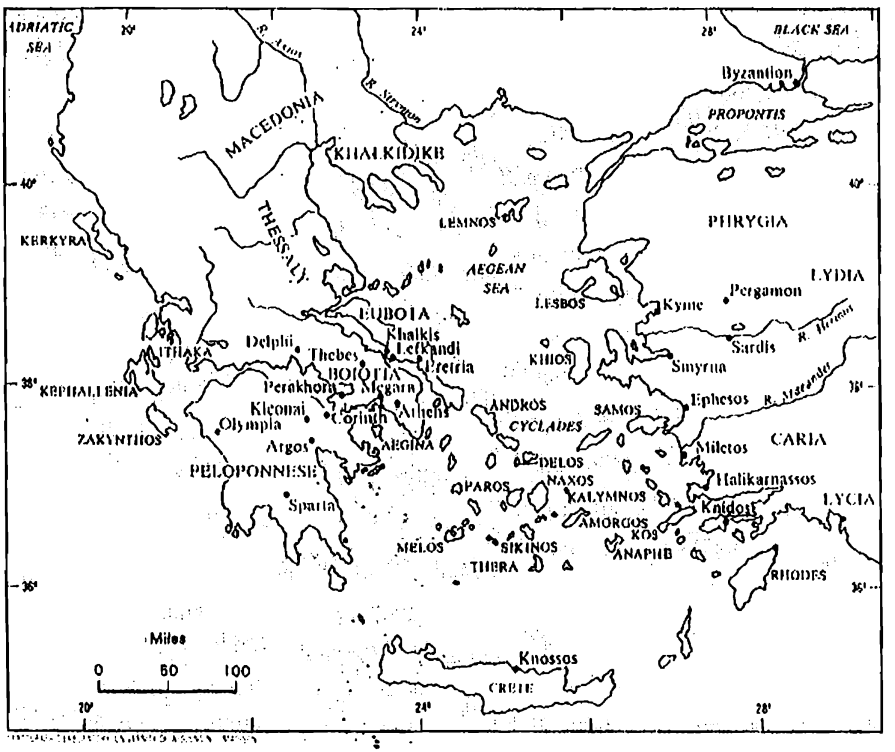


Chronological chart I 1600–700 B.C.

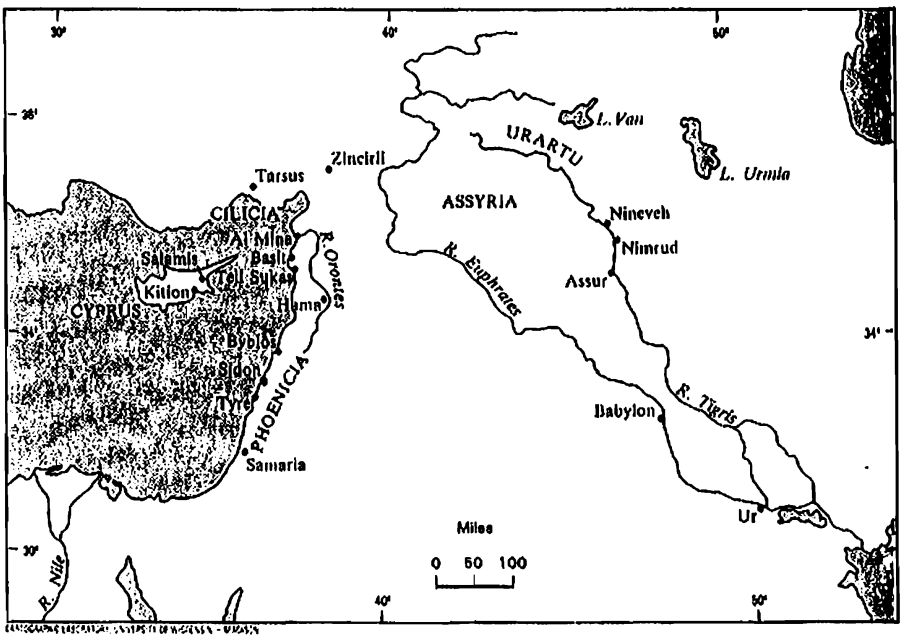


Chronological chart II The Geometric Period according to pottery styles (from Coldstream, *GGP*, 330)

MAPS

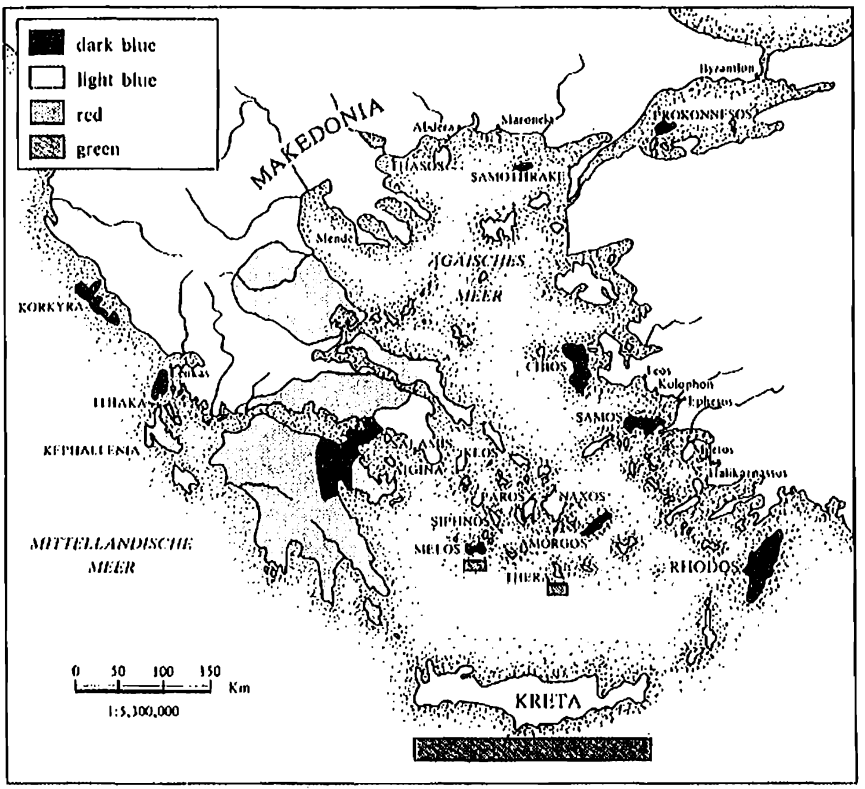


Map 1 Greece and the Aegean coasts



Map II The Near East c. 800 B.C.

Map III South Italy and Sicily



Map IV Kirchhoff's colored map, central portion (after Kirchhoff, 1887: end map)

Foreword

Why was the Greek alphabet invented?

In spite of the tremendous achievements of the Western civilization in so many fields of human endeavour, writing has not progressed at all since the Greek period. (I. J. Gelb)[1]

> quin etiam passim nostris in versibus ipsis
> multa elementa vides multis communia verbis,
> cum tamen inter se versus ac verba necessest
> confiteare et re et sonitu distare sonanti.
> tantum elementa queunt permutato ordine solo.

To be sure everywhere in my verses you see many letters [*elementa*] common to many words; yet you must agree that these verses and these words are distinct both in meaning [*re*] and in sound. So much is possible with letters merely by shifting their order. (Lucretius 1.823–7)

It is commonplace to praise the qualities of the Greek alphabet and the literature which the Greek alphabet has served. After all, our writing[2] descends from the Greek, and certainly our literate culture is Greco-Roman. What about the literature that went before, couched in the writings of the immemorially old, splendid civilizations of Egypt and Mesopotamia? These literate civilizations flourished 2,500 years before Homer and gave much to Hellas in technical and material culture. How much of their literate culture was transferred to Greece?

The answer is "little or none." The Greek simply could not read the writings of pre-Greek peoples. Except for the special case of the Israelites, the textual traditions of the ancient East did not survive the Hellenization of civilization.[3] Although non-Greeks learned Greek and translated books, such as the Septuagint, out of their native language and script into the

[1] Gelb, 1963: 239.

[2] By a "writing" I mean "any system of human intercommunication by means of a set of visible marks with a conventional reference" (Bennett, 1963: 99–100: see 'Definitions'). Any one writing can, and usually does, have many "scripts," such as our own capitals, lower case and cursive.

[3] Though orally preserved traditions, especially myths, did pass from East to West, no doubt by means of bilingual raconteurs.

Greek language and script, or even wrote books in the adopted Greek script and language, no Greek seems ever to have mastered earlier writings.[4] The task must have been too great and the rewards invisible. Even the literature of the Israelites made no impression on the Greco-Roman world until a Hellenized Christianity, its texts written in Greek, alerted the West to the existence of the Septuagint, a Greek version of Hebrew scriptures prepared by Jews for Jews who could not read their own language in their own writing.[5] Most pre-Hellenic written literature perished before the new technology of writing, the Greek alphabet.

Sometimes the word "alphabet" is used in a rough-and-ready way to mean any signary, as when one speaks of the "Cherokee alphabet," and among Semitic scholars it is common to designate by the word "alphabet" such West Semitic writings as Phoenician or Hebrew (for full discussion, see Appendix 1: Gelb's theory of the syllabic nature of West Semitic writing). But in this work by "alphabet" I mean a writing whose graphic elements represent the atoms of spoken language so that, ideally, the approximate sound of the spoken word can be reconstructed solely by means of the sequence of graphic signs. In practice an alphabetic sign will represent a phoneme,[6] one from a set of the smallest units of speech that distinguishes one utterance from another. Thus in English the alphabetic sign *b* stands for /b/, while the sign *c* stands for /k/ or /s/.

The alphabet attempts to translate the aural, invisible elements of human speech into graphic, visible signs. The alphabetic signary presents the paradox of having constituent parts which, when combined, represent human speech, while the parts themselves, except for the vowels, are not

[4] So named, according to legend, because it was made by seventy rabbis from Judea working in Alexandria independently to produce miraculously identical results. Other translations are the Greek and Latin versions of Mago's Punic text on agriculture (Colum. 1.1.13, Varro, *rust.* 1.1.8, 1.10; cf. Cic. *de or.* 2.249); Philo of Byblos (*c.* A.D. 100) claimed to translate into Greek the *Phoenician History* of one Sanchuniathon. The Egyptian priest Manetho of Heliopolis (*c.* 323–245 B.C.) wrote in Greek an *Aigyptiaka*, on which is based the modern division of Egyptian chronology into thirty-one dynasties. Babylonian Berossus, priest of Marduk, wrote a *Babyloniaka*. The *Bellum Judaicum* of the Pharisee and army commander Josephus (born A.D. 37/8) was translated from Aramaic into Greek, in which form alone it survives.

[5] In the entire sweep of pagan Greco-Roman literature there is but a single certain reference to the Septuagint (in a citation of Genesis in the anonymous treatise on style from the first century A.D. περὶ ὕψους, *On the Sublime*, 9.9); by contrast, the Talmud contains over 3,000 borrowings from the Greek language (J. Geiger of Hebrew University has pointed this out to me).

[6] Although a phoneme represents a range of sound subject to further analysis, the speaker of a language will recognize any sound within this range as being "the same thing." Whether the phoneme objectively exists as a separable unit from the continuous flow of speech sounds, i.e. whether or not the atomic model is correct, is important to the difficult problem of the relation between spoken and written language, but not relevant to our inquiry now. Alphabetic writing acts as if the phoneme exists and proceeds accordingly.

pronounceable. For example, when asked to "pronounce" the alphabetic sign *b*, whose name is "Bē," we syllabize it by saying "bə" or the like; the sign *k*, named "Kā," we might try to pronounce as "kə"; and *l*, named "El," we would pronounce as "el".

The "atomic" character of alphabetic signs is reflected by the Latin word *elementa* and the Greek word στοιχεῖα, both of which can mean either "elements" or "letters." Alphabetic signs belong to a semiotic system whose genius is to break down speech syllables into their constituent elements so that the graphic elements may be recombined to represent previously unexpected examples of speech. In this, alphabetic writing is different from all earlier writings, which in their phonetic and nonphonetic operations were designed to remind a native speaker of words whose sounds he already knows. Because alphabetic writing analyzes the sounds of human speech, it is potentially useful for recording any language. Phonetic elements of language seem to be limited in number and belong to all mankind, although different human groups make different phonemic distinctions in their speech. The direct descendants of the Greek alphabet have, in fact, spread over the globe, recording many languages.

From an historical point of view, "alphabet" and "Greek alphabet" are one and the same. The Greek alphabet was the first writing that informed the reader what the words sounded like, whether or not he knew what the words meant. The word "alphabet" itself is Greek, formed from the Greek names of the first two signs in the series.[7] Earlier writings, including such West Semitic writings as Phoenician and Hebrew, were in this sense not alphabets (Appendix 1). All later alphabets, the Latin or the Cyrillic or the International Phonetic Alphabet, are modifications of the Greek alphabet, having the same internal structure.

Although many have praised alphabetic writing and noted its profound influence on culture, no one has ever inquired systematically into the historical causes that underlay the radical shift from earlier and less efficient writings to alphabetic writing. Such is my purpose in this book.[8]

Chapter 1, "Review of criticism: What we know about the origin of the Greek alphabet," gives a critical review of the massive literature on the question, summarizes the consensus of scholars, and presents my own evaluations of the complex, sometimes perplexing, evidence. I note how

[7] Though, of course, the Greek names are corrupted forms of the Phoenician. The word is first used in the Hellenistic period (cf. *GrGr*, 141, note 3). But an illiterate man is ἀναλφάβητος in Nikokhares, an Athenian comic poet of the fourth century B.C. (LSJ s.v.).

[8] For a synopsis of my argument, see Powell, 1990.

scholars have concentrated on where and when the adaptation might have taken place, on the names, sounds, and shapes of the signs, and on early forms and later specializations of the system, while avoiding the question, "Why should the Greek alphabet have been invented at all?"

Chapter 2, "Argument from the history of writing: How writing worked before the Greek alphabet," places the Greek alphabet in its context in the history of writing. Only by examining typical specimens of prealphabetic writing can we understand what sort of change from its predecessors the alphabet was.

Chapter 3, "Argument from the material remains: Greek inscriptions from the beginning to *c.* 650 B.C.," reviews the early surviving examples of Greek alphabetic writing. From the scanty remains, we can draw some conclusions about what the alphabet was first used for and about the social environment in which it first appeared.

More informative for our purpose than the epigraphic evidence would be a textual tradition that we could trace back to the earliest days of Greek alphabetic writing. Homer's poems offer this possibility, and Chapter 4, "Argument from coincidence: Dating Greece's earliest poet," attempts to place Homer accurately in time.

Chapter 5, "Conclusions from probability: How the *Iliad* and *Odyssey* were written down," draws together the strands of our inquiry to reach a surprising answer to the question, "What caused the invention of the Greek alphabet? Who did it, and why?"

I

Review of criticism: What we know about the origin of the Greek alphabet

αὐτὰρ ὁ πάσῃ
Ἑλλάδι φωνήεντα καὶ ἔμφρονα δῶρα κομίζων
γλώσσης ὄργανα τεῦξεν ὁμόθροα, συμφυέος δὲ
ἁρμονίης στοιχηδὸν ἐς ἄζυγα σύζυγα μείξας
γραπτὸν ἀσιγήτοιο τύπον τορνώσατο σιγῆς,
πάτρια θεσπεσίης δεδαημένος ὄργια τέχνης

But he [Kadmos], bringing gifts of voice and thought for all Greece, made tools that echoed the tongue, mingling vowels [ἄζυγα = "things that exist in isolation"] and consonants [σύζυγα = "things that connect"], all in a row [στοιχηδὸν] of integrated harmony. He rounded off a graven [γραπτὸν] model of speaking silence, having learned the ancestral mysteries of the divine art...(Nonnos (fifth century (?) A.D.) 4.259–64)

PHOENICIAN ORIGINS

Φοίνικες δ'εὗρον γράμματ' ἀλεξίλογα.[1]

Phoenicians discovered word-guarding scratchings. (Kritias (*c.* 460–403 B.C.))

About the ancestry of the shapes and the order of names of the signs used in the first Greek alphabet there is no serious question.[2] Greek rationalists themselves argued that the alphabet came from the East, probably Phoenicia, the coastal lands of the Levant reaching from the mouth of the Orontes to the border of Palestine (Map II).[3] Hekataios, a late sixth-

[1] Diels–Kranz, 1951–2: 88, B 2.10.

[2] Cf. Kirchhoff, 1887: 1; Roberts, 1887: 4–21; Hiller von Gaertringen, 1927–8: 357–64; *GrGr* 139–44. Bibliographic summary of modern views in: *LSAG* 1–40; Burzachechi, 1976; Driver, 1976: 171. Cf. also Diringer, 1967; *EG* I 60–104. For Aramaic against Phoenician as prototype on the basis of script comparisons, Segert, 1963, seconded by Driver, 1976: 266–7; *contra*, Gelb, 1963: 176.

[3] For a review of ancient theories, *EG* I 43–8; Driver, 1976: 128–30. For opinions before Herodotus we depend on the scholiast to Dionysius Thrax (a student of Aristarkhos and teacher of grammar, second century B.C.): see Hilgard, 1901: 182–92 (reproduced in part in *FGrHist* I no. 10, p. 162, fr. 9). See also Kleingünther, 1933: 60–4; Jeffery, 1967: 153. For Greek literary evidence concerning the Phoenicians, Bunnens, 1979: 92ff.

century B.C. predecessor to Herodotus, already knew and opposed a tradition that Palamedes, the son of Nauplios, had invented the alphabet.[4] He proposed instead that Danaos had brought it to Greece. Hekataios rationalized myth in accordance with Ionian recognition of Eastern cultural priority: culture comes from the East; Danaos came from Egypt; therefore Danaos brought the alphabet.

This is nascent historical thinking. Herodotus, seeking to place past human events in real time, refined it by reforming a tradition about Kadmos the Phoenician (Hdt. 5.58–61). Kadmos, reports Herodotus, was looking for his lost sister Europa when he migrated from Phoenicia to Boiotia. There he founded Thebes. Kadmos brought the alphabet with him.[5] To Hekataios' certainty that East precedes West in cultural matters, Herodotus added as evidence for his conclusion:

(1) the descriptive word φοινικήια, "Phoenician things," current in Ionia to designate the alphabet;[6]
(2) archaic alphabetic writings he has seen on three tripods dedicated in the temple of Apollo Ismenios at Thebes, the city Kadmos founded;[7]
(3) possibly, autopsy of Phoenician writing, since Herodotus had himself been in Phoenicia (2.44).

Phoenician writing consists of a signary of twenty-two syllabic signs, each of which designates a consonant plus an unspecified vowel (or no vowel: Tables I, II).[8] Of obscure origin, but usually thought to descend

[4] For the story of Palamedes, first attested in Stesikhoros *c.* 630–555 B.C. (Page, 1962: fr. 213), see below, 232ff. For Aeschylus, Prometheus was the alphabet's inventor (*Prom.* 460). Wily Palamedes is a legendary figure; wily Prometheus is a figure of folklore.

[5] We could suspect Herodotus of having concocted this version of events. However, the scholiast to Dionysius Thrax (183.5–9) claims that Anaximander and Hekataios supported the view that Danaos introduced the letters "πρὸ Κάδμου," suggesting that Anaximander and Hekataios also knew the Kadmos story. Aristotle and Ephoros (schol. Dion. Thrax 183.1–5) and Diodorus (5.58.3) agreed that Kadmos brought the alphabet. For the common derivation of "Kadmos" from Semitic *qdm*, "east," first proposed in the seventeenth century, so that Kadmos = "man of the East," see R. B. Edwards, 1979: 58, 60. Against the Semitic origin of the name "Kadmos," Müller, 1820: 113–22 (= 1844[2]: 107–16).

[6] The rare term φοινικήια occurs outside Herodotus in a curse inscription from Teos (*c.* 470 B.C.) directed against graffiti that desecrate (*SIG*[3] I[3], 1915: 38; Meiggs–Lewis, 1969: 62–6). Also, the "Chronicle of Lindos" (99 B.C.) from the Athena temple there reports a (lost) cauldron inscription connecting Kadmos with φοινικικὰ γράμματα (Blinkenberg, 1941: 15–17). Hesychius s.v. reports that Sophocles used the phrase φοινικίοις γράμμασι. φοινικόγραφος (accented φοινικογράφος in LSJ), "writer of *phoinikeia*," (*IG* XII.2 96, 97), is found as title of priest to Hermes in Mytilene. In Crete ποινικαστάς is "writer" (Jeffery–Davies, 1970; *SEG* XXVII 631); see also, G. P. Edwards–R. B. Edwards, 1974.

[7] Forgeries, inasmuch as they pretend to be donations of the Bronze Age heroes Amphitryon, Skaios, and Laodamas. Cf. *EG* I 44.

[8] I follow Gelb's description of the structure of the West Semitic writing. See Appendix I.

Table I *The place of early Greek letter forms in the development of Phoenician letter forms*

Phoen. names	PHOENICIAN				GREEK		PHOENICIAN			Greek names
	Shipitbaal I (Byblos) (= *DR* No. 7) *c.* 900	Cyprus Stele (= *DR* No. 30) *c.* 900–875	Nora Stone (Sardinia) (= *DR* No.40) 9th cent.	Kilamuva (Zincirli) (= *DR* No. 24) *c.* 825	Dipylon jug (Athens) *c.* 740	Lefkandi, Pithekoussai *c.* 750–25	Limassol (Cyprus) (= *DR* No. 31) *c.* 750–25	Karatepe (= *DR* No. 26) *c.* 720	Ipssambul *c.* 590	
ʾalf	K 𐤀	𐤀 𐤀	𐤀	𐤀	𐤀	AAA	𐤀	𐤀	𐤀 𐤀	alpha
bēt	𐤁	𐤁 𐤁	𐤁	𐤁			𐤁	𐤁	𐤁 𐤁	bēta
gaml	𐤂	𐤂	𐤂	𐤂 𐤂				𐤂	𐤂	gamma
delt	𐤃 𐤃	𐤃 𐤃	𐤃	𐤃	𐤃	𐤃	𐤃	𐤃	𐤃	delta
hē	𐤄	𐤄	𐤄	𐤄	𐤄	𐤄 𐤄		𐤄	𐤄	ei
wau	𐤅 𐤅	𐤅 𐤅		𐤅 𐤅		𐤅		𐤅 𐤅	𐤅	[wau]
zai	𐤆	𐤆		𐤆		𐤆	𐤆	𐤆		zēta
ḥēt	𐤇			𐤇 𐤇	𐤇	𐤇	𐤇	𐤇 𐤇	𐤇 𐤇 𐤇	[h]ēta
ṭēt	⊖						⊗	⊗		thēta
yōd	𐤉 𐤉	𐤉 𐤉	𐤉	𐤉 𐤉	𐤉	𐤉	𐤉	𐤉 𐤉	𐤉 𐤉	iōta
kaf	𐤊 𐤊		𐤊	𐤊 𐤊 𐤊		𐤊	𐤊	𐤊 𐤊	𐤊 𐤊	kappa
lamd	𐤋 𐤋	𐤋	𐤋	𐤋 𐤋	𐤋	𐤋	𐤋	𐤋	𐤋	lambda
mēm	𐤌 𐤌	𐤌	𐤌	𐤌	𐤌	𐤌 𐤌	𐤌	𐤌 𐤌 𐤌	𐤌	mū
nūn	𐤍	𐤍 𐤍	𐤍 𐤍	𐤍 𐤍	𐤍	𐤍	𐤍	𐤍	𐤍	nū
semk				𐤎			𐤎	𐤎	𐤎 𐤎 𐤎	xei
ʿain	o	o	o	o	o	o	o	o	o	ou
pē	𐤐	𐤐	𐤐		𐤐	𐤐		𐤐	𐤐 𐤐	pei
ṣādē			𐤑	𐤑		𐤑	𐤑	𐤑	𐤑 𐤑 𐤑	san
qōf	𐤒	𐤒		𐤒			𐤒	𐤒	𐤒	qoppa
rōš	𐤓 𐤓	𐤓 𐤓	𐤓	𐤓 𐤓	𐤓	𐤓	𐤓	𐤓 𐤓	𐤓	rhō
šin	𐤔 𐤔	𐤔	𐤔	𐤔	𐤔 𐤔	𐤔 𐤔 𐤔	𐤔	𐤔	𐤔 𐤔	sigma
tau	+ 𐤕	𐤕	𐤕	𐤕	T 𐤕	T T	𐤕	𐤕	𐤕 𐤕	tau

All signs are drawn from right to left.
Phoenician forms are based on Friedrich–Röllig, 1970: end table.

from Egyptian, the script was fully developed by 1000 B.C., when it spread without differentiation to Hebrew Palestine and soon after to Aramaic-speaking Syria and northern Mesopotamia. The simple syllabary replaced, in many areas, the cumbersome logo-syllabic Akkadian cuneiform scripts,

Table II *The Greek and Phoenician signaries*

	Hypothetical Phoen. name	Hypothetical Phoen. sound	9th–8th cent. Phoen. shape	Selected Greek shapes from epichoric varieties 8th–5th cent. (all forms-right-to-left)	Greek sound	Greek name	Greek shape in 4th-cent. Koinē left-to-right	Modern printed Greek shape
	a.	b.	c.	d.	e.	f.	g.	e.
1	ʾalf	ʾ			a	ἄλφα	A	A α
2	bēt	b			b	βῆτα	B	B β
3	gaml	g			g	γάμμα γέμμα	Γ	Γ γ
4	delt	d			d	δέλτα	Δ	Δ δ
5	hē	h			ĕ	εἶ, ἒ ψιλόν	E	E ε
6	wau	w			w	ϝαῦ	-	-
7	zai	z			dz, zd	ζῆτα (from sādē?)	IZ	Z ζ
8	ḥēt	ḥ			h, ē	ἦτα	H	H η
9	ṭēt	ṭ			th	θῆτα	Θ ⊙	Θ θ
10	yōd	y			i	ἰῶτα	I	I ι
11	kaf	k			k	κάππα	K	K κ
12	lamd	l			l	λάμβδα	Λ	Λ λ
13	mēm	m			m	μῦ, μῶ	M	M μ
14	nūn	n			n	νῦ	N	N ν
15	semk	s			ks	ξεῖ	Ξ Ξ	Ξ ξ
16	ʿain	ʿ			o	οὖ, ὂ μικρόν	O	O o
17	pē	p			p	πεῖ	Π	Π π
18	ṣādē	ts			s	σάν (from zai?)	-	-
19	qōf	q			q	ϙόππα	Ϙ Ϟ Ϙ	-
20	rōš	r			r	ῥῶ	P	P ρ
21	šin	sh			s	σίγμα (from semk?)	Σ	Σ σ ς
22	tau	t			t	ταῦ	T	T τ
23	see wau above				u	ὖ	Y	Y υ
24	(? ϙ [qof] >)				ph	φεῖ	Φ	Φ φ
25	(? X, + [tau] >)				ks, kh	χεῖ	X	X χ
26	(? ϟ [kaf] >)				ps, kh	ψεῖ	Ψ	Ψ ψ
27	o [ὂ μικρόν] >				ō	ὦ, ὦ μέγα	Ω	Ω ω

Table II has been assembled on the basis of information from: (for Greek letters) *LSAG*: 21–40; Guarducci, *EG* I: 88–102; Heubeck, 1979: 102; (for Phoenician forms) Friedrich–Röllig, 1970: end-table. The reconstructed hypothetical names of the Phoenician signs are based on Nöldeke, 1904: 134 (but he writes *alf* and I write *ʾalf*). Apart from signs universally understood, I interpret the conventional system of transcription in the following way (for definitions see Pullum–Ladusaw, 1986, *ad loc.*;

see also, "Definitions," s.v. "consonant," "vowel"): the sign [ʾ] represents a glottal stop, a sound produced by bringing the vocal cords together, then releasing them with a sudden burst of air (two brackets enclosing a sign indicates any phonetic element: cf. "Definitions," s.v. "phonetic," "phonemic"); the macron over a vowel (¯) means that the vowel is long; under-dot in [ṭ] denotes a velarized unaspirated voiceless alveolar (or dental) stop, as contrasted with nonvelarized [t] (velarization, or "emphatic pronunciation," is produced in articulation by secondarily raising the tongue toward the velum, i.e. the soft palate, at the back of the mouth; the alveolae is the bony ridge behind the upper teeth); under-dotted [ṣ] is a voiced alveolar central fricative, as distinguished from [s], a voiceless alveolar central fricative (a fricative is a consonantal sound involving sufficient constriction of the oral tract to produce friction in articulation); under-dotted [ḥ] indicates a voiceless pharyngeal fricative, as distinguished from [h], a voiceless glottal pharyngeal fricative; the sign for *ʿain* represents a voiced pharyngeal fricative, a sound not found in any Indo-European language; [š] with hachek denotes a voiceless palato-alveolar central laminal fricative ("palato-alveolar" refers to the part of the mouth just behind the alveolar ridge; "laminal" designates the middle of the tongue, as opposed to the top or back of the tongue).

long supported by the ruling elite of Bronze Age civilization.[9] In the eighth and seventh and sixth centuries B.C. appear in the Levant clear local varieties of this script. West Semitic writing came to include two branches: Northwest Semitic (Phoenician, Canaanite, Hebrew, Aramaic, Samaritan) and Southwest Semitic (North Arabic, South Arabic, Ethiopic). Derivatives of the script are still today preferred by Semitic speakers. While Phoenician writing is a sub-group of "West Semitic" writing, it is also the form of West Semitic writing which is earliest attested by complete inscriptions.[10]

Among extant Phoenician inscriptions, in a repertory of signs clearly antedating the Greek, signs appear with similar *shapes* to those of the earliest Greek inscriptions. The signs are, moreover, in a similar *order* (Tables I, II).[11] It is inconceivable that the similarities in shape and in ordered sequence between the Greek alphabet and the epigraphic remains of Semitic writing are accidental. But Herodotus was wrong about Kadmos. Kadmos, founder of the legendary House of Thebes, should

[9] See B. S. J. Isserlin, "The Earliest Alphabetic Writing," *CAH* III².1 811.

[10] Examples of West Semitic writing earlier than Phoenician are either very short or badly garbled. For a review of the scattered remains, see Naveh, 1982.

[11] An order proved older than extant Semitic writing by its attestation in fifteenth- and fourteenth-century cuneiform Ugaritic abecedaria. Ugaritic writing, in appearance completely unlike Semitic writing, is called "cuneiform" because it consists of wedge marks impressed in clay; the signs are otherwise completely unrelated to Akkadian cuneiform. For the Ugaritic abecedarium, Cross–Lambdin, 1960; Sznycer, 1974; Dietrich–Loretz–Sanmartin, 1976. for Ugaritic in general: Gordon, 1940. For the fairly recent discovery of a twelfth-century Canaanite abecedarium, Kochavi, 1977.

belong to the end of the Middle Bronze Age (*c.* 1600 B.C.?), far too early for the invention of the Greek alphabet. Herodotus' story is a legendary account of the historical fact that the alphabet did come from Phoenicia. Because Kadmos was the famous legendary migrant from Phoenicia, it was logical to assume that he brought with him Phoenicia's most celebrated export.

SINGLE INTRODUCTION BY A SINGLE MAN

Certi studiosi credevano, un tempo, che l'alfabeto fenicio si fosse trasformato in alfabeto greco contemporaneamente in diversi luoghi. Oggi nessuno lo crede più. (M. Guarducci)[12]

It is an axiom of historical criticism that the same arbitrary change in a conventional system, when many – even innumerable – such changes are possible, will not occur twice, and certainly not at the same time in nearby places. Yet in all varieties of the Greek alphabet the West Semitic consonantal signs *ʾalf* 𐤀, *hē* 𐤄, *yod* 𐤉, *ʿain* 𐤏 have been converted to the Greek vowel signs *alpha* Α, *epsilon* Ε, *iota* Ι, and *omicron* Ο, while Semitic *wau* 𐤅 appears in the Greek system as two letters: consonantal *wau* Ϝ (much later called *digamma* from the shape[13]), which keeps the same sixth place in the abcedarium as original Semitic *wau*, and vocalic *upsilon* Υ, placed at the end of the Greek series after *tau* (Tables I, II).[14] Therefore the full system of vowel indication in Greek writing, of original and even idiosyncratic design, unknown in any earlier writing, by itself places beyond doubt the conclusion that the alphabet was created by a single man

[12] *EG* I 67.

[13] In, for example, Cassiodorus (*c.* A.D. 490 – *c.* 583), *De orthographia*, ed. Keil, 7.148.10f. (quoting "Annaei Cornuti (first century A.D.) *de enuntiatione vel orthographia*"). Cf. also Dionysios of Halikarnassos, *Ant. Rom.* 1.20.

[14] Ε seems originally to have been named simply Ἒ, pronounced [ē], then spelled ΕΙ when the diphthong ΕΙ acquired the pronunciation [ē]. Much later, in Byzantine scholarship, the vowel was called *epsilon* [ἒ ψιλόν], "bald *e*," to distinguish it, when spelling a word aloud, from the diphthong ΑΙ (called ᾶῑ δίφθογγος), which by then had acquired the same sound as Ε. I will call Ε *ei* or *epsilon*. The name of Υ undergoes a parallel development, being originally named Ὗ (or Ὕ, since initial Υ is always aspirated) after the long vowel sound and, in Byzantine times, *upsilon*, to distinguish it from the then similar-sounding diphthong ΟΙ (called ῡ̄ῑ δίφθογγος). The name of the letter Ο was first spelled Ὅ, pronounced long [ō], then οὖ when the combination ΟΥ came to be sounded long [ō]. In Byzantine usage the name ὃ μικρόν, "little *o*," distinguishes the sign Ο from Ω, then called ὦ μέγα, "big *o*." (The original name of Ω was also taken from its sound, namely ὦ.) I will call Ο *omicron*. (For the names of the vowels see W. S. Allen, 1987: 172–3.) The name ϝαῦ for Ϝ is attested only by a statement in Cassiodorus (above, note 13) that Varro had called it such (this depends on a restoration by Ritschl for "*va*" of the MSS: Nöldeke, 1904: 124–5; W. S. Allen, 1987: 48). See also Gordon, 1973: 46, note 67.

at a single time.[15] The many minor distinctions in letter form and phonetic value among the local varieties of the earliest surviving Greek inscriptions, the "epichoric varieties" of the Greek alphabet, will not alter this conclusion.[16]

Other unique, arbitrary, and unrepeatable features of Greek alphabetic writing, best explained by the theory of monogenesis, are:

(1) the presence of the letter *phei* φ (= [ph]), which has no Semitic antecedent, in all local varieties of Greek writing (except on Crete, where there may have been no use for it[17]);
(2) an extraordinary exchange and confusion of the names and sounds of the Phoenician sibilants *ʒai* 𐤆, *semk* 𐤎, *ṣādē* 𐤑, and *šin* 𐤔;
(3) the replacing of the uniform Phoenician retrograde writing, from right to left, one line beneath the next, by the odd (though not unique) Greek *boustrophedon* writing, "as the ox turns" in the ploughed field, in lines alternately right-to-left, left-to-right.

Single creation by a single man is what we would expect from what is known about the generation of other writing systems. For example, Bishop Wulfilas invented Gothic script in the fourth century A.D. to record his translation of the Bible into Gothic; Saint Mesrob created Armenian script *c.* A.D. 400 for the Armenian church; in the ninth century Saint Cyril fashioned the Glagolitic script to convert the Slavs to Christianity (unless it was Cyrillic script, which bears his name); a Tangut prince invented the Tangut script in A.D. 1036; King Sejong of Korea invented the Korean

[15] Cf. *LSAG* 2. Most scholars accept monogenesis of the Greek alphabet, including Wilamowitz (who called the alphabet's inventor "einem unbekannten Wohltäter"), A. Kirchhoff, E. S. Roberts, I. Yzeren, W. Larfeld, F. Lenormant, M. Falkner, D. Diringer, A. Schmitt, M. Guarducci, H. T. Wade-Gery, L. H. Jeffery, R. Harder, A. E. Raubitschek, and E. L. Bennett, Jr. (Cf. the list in Cook–Woodhead, 1959: 175, note 2, and in Heubeck, 1979: 87, note 520. Cook and Woodhead, on the basis of differences in the epichoric varieties, hold out for polygenesis (*ibid.*), in agreement with E. Meyer, 1931: 2, 349.)

[16] Attempts to explain the very early Phrygian writing attested for the late eighth century (especially Young, 1969) as a separate adaptation from the Phoenician rather than a derivation from the Greek, although the Phrygian writing shows the same vocal system as the Greek, did not take account of the nature of the change from Phoenician to Greek writing (see Lejeune, 1969 and 1970). The early appearance of the Greek alphabet among the Etruscans, by 700 B.C. (cf. Table IV.1), is a parallel to the early appearance of alphabetic writing among the Phrygians. I shall not treat here of the large topic of the epichoric alphabets of Asia Minor; the Greek alphabet precedes them. For the Greek origin of the Phrygian, Lydian, and Lykian writing see Lejeune 1969 and 1970, Heubeck, 1958: 46–50, and Kalinka, 1901: 5, respectively. For Carian, see Ševoroškin, 1968; Ray 1982. For the script from Side, Brixhe, 1969. For the Lydian and Carian inscriptions from Sardis, Gusmani, 1975: 51–62, 92–111, 124–30.

[17] Crete's dependants Melos and Thera also lack φ: see "The problem of the supplementals φ ξ ψ," below, 48ff.

script in A.D. 1446; about 1820 Sequoyah (or Sikwayi), who could neither read nor write English, created a syllabary based on English signs to record his native Cherokee language; between 1840 and 1846 an English Methodist missionary living near Hudson Bay, John Evans, created a syllabary for the Canadian Cree, still in use in a modified form by the Eskimos of Baffin Island; the Eskimo Neck (Uyako), who lived between 1860 and 1924, invented the Alaska script; another Arctic script was created by the Chukchi shepherd Tenevil in 1920; Christian Kauder fashioned a logography for the Micmac Indians; between 1829 and 1839 a Negro named Momoru Doalu Bukere developed a system for the Vai Negroes in Sierra Leone and Liberia; a Muslim tailor named Kisimi Kamala is said to have created in three and a half months a syllabic writing, known since 1935, for the African Mende; between 1903 and 1918 a chieftain named Njoya, under the influence of a European woman missionary, invented a writing for the Bamum in the Cameroons; the son of the Somali Sultan, Isman Yusuf, fashioned the Somali alphabet from his knowledge of Arabic and Italian writing; in 1904 Silas John Edwards, a Western Apache shaman, invented a writing to record a system of sixty-two prayers he had received in a vision; in China, Samuel Pollard invented a syllabic script for the Miao language, a task complete by 1904; between 1958 and 1966 Dembele, a native of Mali and a graduate of Koranic schools, with some knowledge of French, created the Dita alphabet; early in the 1960s Kingsley Read's nonroman script for English, a submission to the George Bernard Shaw Alphabet Competition, was recast as the Proposed British Alphabet, into which Shaw's *Androcles and the Lion* was transliterated and published by Penguin Books Ltd.[18]

This genius and benefactor of mankind, who invented the Greek alphabet by adaptation from the preexisting Phoenician syllabary, I will call "the adapter."[19] A central purpose of this study is to discover the motives of this man, whom we know by his fruits alone. Like all strong individuals who have changed the course of history, even if by accident, he surely had his reasons.

THE PLACE OF ADAPTATION

εἴ περ καὶ μάλα πολλὸν ἑκαστέρω ἔστ' Εὐβοίης,

[18] See Gelb, 1963; 206–11; Gauer, 1984: 130–4; also, for Gothic, Diringer, 1968: 372–3; for Armenian, Diringer, 1968: 250–1; for Glagolitic, Diringer, 1968: 374–6; for the Vai Negroes, Kotei, 1977: 58–61; for Apache, Basso-Anderson, 1977; for Dita, Kotei, 1977: 69; for Shaw, Berry, 1977: 13, note 3.

[19] After Einarson, 1967: 1.

τήν περ τηλοτάτω φάσ' ἔμμεναι, οἵ μιν ἴδοντο
λαῶν ἡμετέρων, ὅτε τε ξανθὸν Ῥαδάμανθυν
ἦγον ἐποψόμενον Τιτυὸν Γαιήιον υἱόν.

...even if it is much further than Euboia, a place which those of us who have seen it, when they carried fair Rhadamanthus to visit Tityos son of Gaia, say is the furthest of all lands. (*Od.* 7.321–4)

Since the adapter had seen Phoenician writing, he must have been in a place where Phoenicians and Greeks intermingled, no doubt where there was continuing involvement between the two peoples.[20]

On the mainland (Map 1), Thebes is a possibility because of Herodotus' claim that Kadmos brought the alphabet from Phoenicia to Thebes. But Thebes has stubbornly refused any evidence of Phoenician occupation.[21] The Boiotian local script apparently derives from the nearby island of Euboia.[22]

Of the islands, Rhodes, Crete, and Cyprus, situated directly on East–West trade routes (Maps 1, 11), have seemed likely places for the transmission. A literary tradition puts Kadmeians on Rhodes (Diodoros 5.58). Certainly Phoenicians were there in the eighth century, where many small Phoenician artifacts have been found.[23] Crete, together with its sister islands Thera, Melos, Sikinos, and Anaphe, is often said to have possessed the most primitive form of the Greek alphabet (but see below, 55ff.), and Crete undoubtedly had foreign connections in the ninth and eighth centuries. Phoenician literacy on Crete is now proved by the discovery of an inscribed bronze bowl *c.* 900 from an unplundered grave near Knossos, in a script, however, too early to be a model for the Greek alphabet.[24] From Thera, where Herodotus (1.147–8) placed eight generations of Phoenicians, come some of the earliest Greek inscriptions, though no trace of the Phoenicians has been found. Phoenicians were on Cyprus by 900 B.C. at least, and the great Phoenician settlement of Kition (Map 11), founded in the ninth century, provided admirable conditions for contact.[25] A bilingual Cypriote-Phoenician inscription survives from *c.* 875 (for the Cypriote syllabary, which recorded Greek, see below, 89ff.).[26]

[20] Cf. Carpenter, 1945: 456; *LSAG* 5–12.

[21] See Mentz, 1936: 365. For the extraordinary find of thirty inscribed Mesopotamian cylinder seals from the fourteenth century B.C. in the "Palace of Kadmos" at Thebes, see Touloupa, 1960. Although it is possible that local memories of "Eastern literacy" lent credibility to the story of Kadmos the Phoenician who brought letters to Greece, Mesopotamia is not Phoenicia; cuneiform writing is not Phoenician writing; and 1400 B.C. is far too early for the Greek alphabet.

[22] *LSAG* 90. [23] Cf. Falkner, 1948: 110ff.; Klaffenbach, 1966: 35–6; *LSAG* 9–10.

[24] Sznycer, 1979. [25] *LSAG* 8, note 1; Birmingham, 1963; Karageorghis, 1969.

[26] O. Masson, 1968.

A widely accepted claim for the place of adaptation, on the present exiguous evidence, goes to a site outside Greece, at Al Mina (Map II) in north Syria, south of the mouth of the Orontes and somewhat inland from the coast. An international trading colony was founded there in the late ninth century.[27] Sir Leonard Woolley, who excavated the site in 1946–7, thought Al Mina to be the Posideion (Ποσιδήιον) described by Herodotus (3.91) as the northernmost boundary of φοινίκη, "Phoenicia." According to legend Amphilokhos founded Posideion after the Trojan War. Woolley dug only the port area; part of the site, including the cemetery, had been destroyed when the Orontes shifted course. Greek pottery at Al Mina, dated 800 B.C. or before, comes from Euboia, Rhodes, Cyprus, and Corinth, implying a cosmopolitan site.[28] Phoenician script from Hama up river on the Orontes (Map II) proves that something close to the expected model for the Greek alphabet existed near Al Mina at the right time,[29] and J. Boardman has now published a sherd with a Greek inscription from the site.[30] It is highly probable that from Al Mina came many of the products which so impressed the Greek imagination in the orientalizing period. Here are good conditions for the adaptation to have occurred: long contact between Greeks and Easterners, proximity to Phoenicia, and the right time.[31]

The finds of Euboian pottery at Al Mina are of special interest when we consider the role that Euboia played otherwise in the early history of the alphabet.[32] The towns of Eretria and Khalkis, on either side of the central Euboian Lelantine plain, had from the early Iron Age strong trade connections across the Cyclades and Cyprus with the Phoenician Levant. From Naxos, which may have been visited by these early wide-ranging Euboian traders, now comes an inscribed sherd claimed to date to *c.* 770.[33]

[27] Woolley, 1938. See Boardman, 1980: 39–51, for review of the site. For the foundation date, J. Taylor, 1959: 91; cf. Coldstream, 1968: 312.

[28] Boardman, 1957: 24–9. The Euboian pottery was first thought to be from the Cyclades.

[29] Ingholt, 1940: 115ff. [30] Boardman, 1982a.

[31] For Al Mina, cf. Dunbabin, 1957: 61; Cook–Woodhead, 1959: 175–8; *LSAG* 5–12; 374. See Boardman, 1982b, for the Euboians as founders, with the Cyclades over which Euboia may have had control, of Greek trade with the East at Al Mina. In the eighth century there were Greeks at other sites near Al Mina, especially Tell Sukas (Riis, 1970: 126–7, 159–62; *contra*: Muhly, 1970) and Ras el Basit (Courbin, 1972). "Basit" may be a corruption of Herodotus' "Posideion" (Boardman, 1980: 45).

[32] For the following, I am indebted to Jeffery, 1979 (unpublished). L. Threatte has kindly given me information on the symposium in which this talk was presented.

[33] Lamprinoudakes, 1981: 294, pl. 201a. See below, inscription no. 18 (my thanks to A. Snodgrass for bringing this inscription to my attention). The Naxian graffito is scratched on the inside of a piece broken from the lip of a Geometric pithos. The date of the pot, [illegible], is at least a generation [illegible]

From modern Lefkandi in Euboia, in addition to gold, ivory, and faience objects from the eastern Mediterranean, come the very earliest Greek inscriptions, dated by stratification to as early as *c.* 775–750.[34] The name of ancient Lefkandi is unknown; it may have been "Old Eretria," before military defeat by its rival Khalkis forced evacuation southeast to the later "Eretria" at the edge of the Lelantine plain.[35] The important Euboian town of Khalkis, which had connections with Kyme in Aiolis in Asia Minor, apparently joined with Eretria, in friendlier times of the earlier eighth century, to found the colony of Pithekoussai on the island of modern Ischia in the Bay of Naples. The earliest pottery from Pithekoussai is dated *c.* 770 B.C.[36] The cemetery in the Valle San Montano on Pithekoussai, where much of the pottery was found, has now produced eighth-century inscriptions, including the three lines of verse on the celebrated "Cup of Nestor," *c.* 740 (see below, 162ff.), together with objects imported from north Syria (Al Mina?), from Phoenicia, and from Egypt.[37] Settlers from Pithekoussai, together with new arrivals from Euboia and Boiotia, soon settled Cumae[38] on the Italic mainland across the bay. The outpost must have included Kymaians from Euboia or some Aiolic Kymaians, who gave the name of their mother city in Euboia[39] or Asia Minor to the Italian colony.[40] It was from Italian Cumae that the Etruscans took their writing, which, transmitted by Rome, has become our own, the writing on this page.[41]

[34] See Popham–Sackett–Themelis, 1980: 89–93. The date 775–750 B.C. was given in Jeffery's unpublished talk (1979). About this date M. Popham writes me (July 1987): "I take it Anne Jeffery was referring to inscription no. 102 on page 90 of *Lefkandi I*, the context of which is given in the catalogue at page 93 and discussed at page 19 – i.e. it was found in a pit under a floor, the pottery from which is considered by Desborough at pages 48–9, where he is inclined to make all the contents Sub-Protogeometric III with just some doubts about one possible incipient Late Geometric fragmentary vase (nos. 482–4). If the context is accepted as Sub-Protogeometric III but near Late Geometric, as it seems Desborough thought, then the date of 775 B.C. is reasonable, but there is no absolute certainty."

[35] Or the ancient name of Lefkandi may have been "Kyme," the town from which Aiolic Kyme in Asia Minor was founded, according to an unpublished talk by E. Touloupa (my thanks to R. Janko for the point). For "Lelanton" as the ancient name, see Popham–Sackett–Themelis, 1980: 425–6. [36] Cf. Buchholz, 1971; Buchner, 1982. [37] See Bérard, 1957: 37ff.

[38] So I will spell the Italian city.

[39] Especially it Lefkandi was ancient Euboian Kyme: above, note 35.

[40] Strabo 5.247; Livy 8.22.6, confirmed by modern excavation (Dunbabin, 1948: 452–3; Buchner, 1966; Boardman, 1980: 165).

[41] The earliest examples of Etruscan writing are now assigned to *c.* 700 B.C.: names on an imported kotyle from Tarquinia (Jucker, 1969: pls. 135 6) and on a plate from a tomb at Caere (Colonna, 1968: figs. 1–4), and the abecedarium on the miniature ivory writing tablet from Marsiliana d'Albegna (*ZPE* 70, 1987, pl. 4B (GB)).

Although no early writing survives from Aiolic Kyme in Asia Minor, it must have been from here, or near here, that Phrygia early received its writing. Examples of Phrygian writing from the late eighth century were found at Gordion, far inland.[42] As proof of close relations between Phrygia and Aiolis in Asia Minor during the earliest days of Greek literacy, we are told that a Phrygian king named Midas married the daughter of a local Aiolic Kymaian dynast named Agamemnon[43] (at whose court about 700 B.C.[44] poetry celebrating another Agamemnon may have been recited). This may have been the same Midas who, first of Hellenizing Eastern monarchs, sent an offering to Apollo's shrine at Delphi.[45] From Smyrna, south of Aiolic Kyme and Aiolic herself before overrun by Ionians, comes a late eighth-century inscription and others of the seventh century (below, 139f.). Returning to the mainland, we find Khalkidic inscriptions also from the eighth century, on Boiotian bronze cauldrons dedicated on the Acropolis at Athens (below, 144f.), which had close commercial and cultural ties with Euboia. From Athens comes the earliest real Greek alphabetic inscription – a text with syntax – the hexameter and a few other signs on the "Dipylon oinochoe" of *c.* 740 (below, 157ff.).

There appears to be a pattern underlying the scattered data: the Euboians were trading with the Cyclades, no doubt including Naxos whence comes an eighth-century graffito; Euboians traded in Al Mina in the Levant, where they could easily have seen Phoenician writing; Euboian Lefkandi yields our very earliest evidence of Greek alphabetic writing; from nearby Athens comes the earliest "long" inscription, on the Dipylon oinochoe; Euboians founded Pithekoussai opposite the northern headland of the bay of Naples in the eighth century, where other early remnants of alphabetic writing have been discovered; from Pithekoussai Euboians settled Italian Cumae in collaboration with Aiolians from Euboian Kyme (= Lefkandi?) or from Kyme in Asia Minor; Kymaians in

[42] Above, note 16. R. S. Young found at Gordion six graffiti earlier than the Cimmerian destruction of 696 B.C. (according to Eusebius) or 676 B.C. (according to Julius Africanus). Five graffiti came from the huge grave-tumulus, the "Midas tomb," and the sixth from a settlement deposit earlier than the last pre-Cimmerian buildings. Though Young preferred to date the closing of the tumulus to 725–717 B.C. (Young, 1958), a later date in the 680s now seems preferable. The Gordion graffiti are therefore placed in the late eighth century. See Snodgrass, 1971: 348–50; Coldstream, 1977: 301; Popham–Sackett–Themelis, 1979–80: 92.

[43] Heraclides Lembus (*c.* 150 B.C.) mentions the daughter, Midas' wife, in his epitome of Aristotle's *Constitution of Kyme* (Dilts, 1971: 27); Pollux (ed. Bethe, *Onomasticon* 9.83), evidently from the same source, mentions Agamemnon. Cf. Hdt. 1.14.

[44] Assuming this to be the great Midas and not a namesake of later date: see Wade-Gery, 1952: 7.

[45] Boardman, 1980: 86.

Asia Minor at an early date gave their script to the Phrygians; from Italian Cumae the Etruscans received their writing before 700. On this evidence "the Euboeans certainly have a strong claim to be regarded as the first Greeks to write alphabetically; and their merchants at Al Mina, living among a Phoenician majority, would have been especially well placed for learning enough Phoenician to master the alphabet at an early stage, and then bringing back their discovery to the Greek homeland."[46] The epigraphic and archaeological evidence connecting Euboians and early alphabetic literacy may well accord with Herodotus' report (5.57–8), while discussing the murder of Hipparkhos, that "the Gephyraian clan, whence came the slayers of Hipparkhos, came first, according to its own traditions, from Eretria; but according to my own inquiries, they belonged to the Phoenicians who came with Kadmos...[who] brought into Hellas letters [γράμματα], which had previously been unknown..." The earliest surviving remains of Greek writing are found just where one would expect to find them, if writing came to Greece borne by Euboian traders from the Levant. Hesiod, an eighth-century poet, sang in Euboian Khalkis at the funeral games of Amphidamas (*Erga* 654–5), and Homer, our other eighth-century poet, came from Smyrna, according to an old story, and lived in Khios, close to Aiolic Kyme.[47] The texts of Homer and Hesiod may themselves testify to early literacy in the Euboian circuit – someone wrote down these poems, or we would not have them.

It is right to conclude that the Euboians and their associates were the first possessors of the Greek alphabet, but dangerous to be precise about the place of adaptation. The adaptation was the act of individual men. Either the adapter took his model from an informant in the Levant, or he took it from a Phoenician resident in Greece or passing through Greece, or he even took it from a member of his own household, a slave such as Homer describes in the swineherd Eumaios, royal-born, who came from "an island called Syriē" (*Od.* 15.403), i.e. Syria.[48] Phoenician master craftsmen were permanent residents, in the late Geometric, among Greeks in Attica, Euboia, Crete, and the Dodecanese, just where we find the earliest Greek alphabetic writing. Phoenician proximity to Greeks at this time in the far west is suggested by what may be Phoenician-Aramaic graffiti intermixed with Greek alphabetic writing on Ischia.[49] If the adapter took his model from Al Mina, he cannot have worked out his system on the spot, to judge

[46] Coldstream, 1977: 301. [47] For Homer's birth and life, T. W. Allen, 1924: 11–41.
[48] Cf. Guarducci, 1964: 124–7; *EG* I 68–9.
[49] McCarter, 1975b; also Garbini, 1978; Johnston, 1983: 64, fig. 2.

from his misunderstanding of many details, especially the names and values of the sibilants (below, 46–8) and the direction of writing. Conversely, an immigrant Phoenician, if he were the adapter's informant, may himself have been only marginally literate.

THE DATE OF TRANSMISSION

The actual borrowing process can be neither described nor dated very closely: the guesses range between 1000 and 750 B.C. (M. I. Finley)[50]

During the first third of this century a near consensus existed among scholars that a date of 1000 B.C. or even earlier was probable for the invention of the Greek alphabet, although no example of Greek alphabetic writing survives from nearly so early a date.[51] Undoubtedly a strong prejudgment contributed to the early dating of the Greek alphabet: high civilizations are literate; the Greeks were obviously a high civilization; therefore the Greeks were literate from an early time. This conclusion was encouraged by a prevalent theory, supported by ancient accounts and most of all by the legend of Bronze Age Kadmos, of vigorous Phoenician colonial activity around the shores of the Mediterranean between 1200 and 800 B.C. This Phoenician presence was thought to have created conditions of interchange that made inevitable an early transmission of writing. Such a Phoenician presence should, however, be dated to the ninth and eighth centuries.[52]

The modern history of the question, "When was the Greek alphabet adopted?" began with two articles by Rhys Carpenter published in 1933 and 1938.[53] Carpenter had long opposed on archaeological grounds the notion that Phoenicians were plying Greek waters throughout the Greek Dark Ages. He saw no chronological value in the legend of Tyrian Kadmos. Carpenter based his position on two principles. First, the Greek alphabet should be dated to the time when its letter forms most closely approximate surviving examples of Phoenician writing; this principle was accepted by earlier scholars who worked, however, amidst great confusion

[50] Finley, 1965: 9.

[51] Scholars of the eminence of E. Meyer, A. Kirchhoff, J. B. Bury, H. T. Wade-Gery, and the handbooks including Pauly–Wissowa found nothing wrong with a high date for the introduction of the alphabet. See Heubeck, 1979: 75–6, for the full chronological range of scholarly views with dates ranging from 1400 B.C. to the late eighth century. Also, Carpenter, 1933: 15–17; *LSAG* 12, note 4; Pfohl, 1968: xv-xvii.

[52] See Moscati, 1982. For bibliography on this large topic, Bunnens, 1979.

[53] Carpenter, 1933 and 1938. See McCarter, 1975a: 12–27, for a balanced summary of Carpenter's arguments and influence.

about the dating of critical Semitic texts.[54] Second, the date of introduction could not have occurred much earlier than the earliest surviving epigraphic remains of Greek alphabetic writing. Carpenter blasted the illogicality of supposing that, for hundreds of years prior to the first surviving Greek alphabetic inscriptions, the Greeks always wrote on perishable material, when our knowledge of Phoenician writing derives exclusively from writing on imperishable material. Surely something would have survived from an earlier literate period, he thought.[55]

Comparing the earliest examples of Greek writing with samples of Phoenician writing, Carpenter concluded that the Greek alphabet could not possibly be older than the end of the eighth century, when the letter forms of existing Semitic inscriptions seem most closely to resemble early Greek forms (cf. Table 1).[56] Carpenter insisted on making typological comparisons of whole writing systems, not of isolated letter forms, as many did (and still do). For the alphabet came into being as a piece, at one time. Applying his second criterion, Carpenter depended on the earliest example of Greek writing then known, the Dipylon oinochoe inscription, which he placed too late at *c.* 680 (cf. below, 158). By this reasoning he concluded that the adaptation took place *c.* 720–700 B.C.

Carpenter's contribution was to establish correct criteria whereby we may date the alphabet, though the comparison of letter forms is not as helpful as we might expect, as an examination of Table I will make clear. B. C. Ullman, basing his arguments on the same inscriptional evidence as Carpenter and publishing in the same journal one year later, arrived at a date of 1300 B.C. for the alphabet's invention.[57] If we allow for the wide variation that individual hands always give to a script, and for accidental or wilful changes in letter forms that seem to have taken place at the

[54] Particularly the oldest Phoenician inscription from the wall of the tomb of Ahiram from Byblos. Initially dated to the thirteenth century by the French excavators on the basis of associated pottery fragments bearing the cartouche of Ramses II, the inscription is now usually assigned on epigraphic grounds to *c.* 1000 B.C. See Albright, 1947.

[55] Opponents of Carpenter's *argumentum ex silentio* normally cite the fact that, within a certainly continuous tradition, there are no examples of Cypriote writing between the eleventh and the eighth centuries B.C. (see below, 89ff.). But the Cypriote tradition of writing was always parochial, almost never used outside of Cyprus, and probably known to few men at any time. By contrast, the Greek alphabet is characterized in its earliest extant examples by broad use over a wide geographic area to record many dialects and even non-Greek languages. It is unreasonable that the Greek alphabet suddenly changed its character at the moment when it becomes visible in history. While there *is* evidence that Cypriote writing was used at an earlier time, there is no such evidence for the Greek alphabet.

[56] He depended especially on the "Cypriote Bowl" (*CIS* 5; DR no. 31), sometimes called the "Baʿal Lebanon" inscription after the god to whom the bowl was given. See Table 1, eighth column (= "Limassol, Cyprus").

[57] Ullman, 1934.

moment of transmission, there is little to favor any one of the Phoenician scripts between *c.* 900 and *c.* 600 over another as the model of the alphabet. Surviving examples of early Phoenician writing are rare, amounting to fewer than a dozen examples from before 500 B.C.[58] Most dates of these texts are necessarily insecure, since they have been assigned in accordance with their positions in a theoretical sequence of epigraphic development and not on the basis of archaeological context.[59] Surviving examples of Phoenician writing, written on stone or metal, are in a "lapidary" style, though the adapter may have received his model in a "cursive" style, written on perishable material, on papyrus or a wax tablet. P. K. McCarter's monograph on Greek and Phoenician letter forms[60] perhaps gives the best we can hope for, on the basis of a comparison of letter forms. Thoroughly reviewing the Phoenician remains, McCarter concludes that "a reconstructed 'Proto-Greek' alphabet, as it must have appeared at the beginning of the independent history of the Greek scripts, could be interpolated into the developing Phoenician sequence at a point not much later than and certainly no earlier than 800 B.C."[61] McCarter's date nicely fits a modern conclusion based on Carpenter's more reliable second criterion, the chronology of our earliest finds. These may extend back to as early as *c.* 775 B.C. Allowing a generation or so between the invention of the alphabet and our earliest extant examples, we must conclude that the Greek alphabet was created about 800 B.C.[62]

THE MOMENT OF TRANSMISSION[63]

How the alphabet was learned

Let us now ask, what actually happened when the adapter took from a Phoenician informant an abecedarium and created from it his own system, the first true alphabet. We must place ourselves in the position of the

[58] Donner–Röllig list only eight (DR nos. 1–8). [59] Cf. Isserlin, 1982: 804.

[60] McCarter, 1975a.

[61] McCarter, 1975a: 123–4 (but his notion of an early period of experimentation is unpersuasive). Heubeck, 1979: 80, on the basis of B. C. Ullman's comparison of letter forms from the eleventh to the fourth centuries B.C. (Ullman, 1934: 364, fig. 1), agrees that the transmission must have been "im 9. und 8. Jh."

[62] Most Hellenists now accept this date (e.g. W. S. Allen, 1987: 169; Wachter, 1989: 69–76). Semiticists continue to plump for a broad-range of dates (e.g. the eleventh-century date of J. Naveh (Naveh, 1973: 1–8; *contra*, McCarter, 1975a: 113–18). A source of confusion is the word "alphabet," which to the Semiticist means "West Semitic writing, with its Greek offshoot," while to I. J. Gelb and his followers, including myself, the word means "the Greek alphabet, historically related to West Semitic but structurally different." See Appendix 1.

[63] My thinking on the following topic has been much clarified by conversations with E. L. Bennett, Jr.

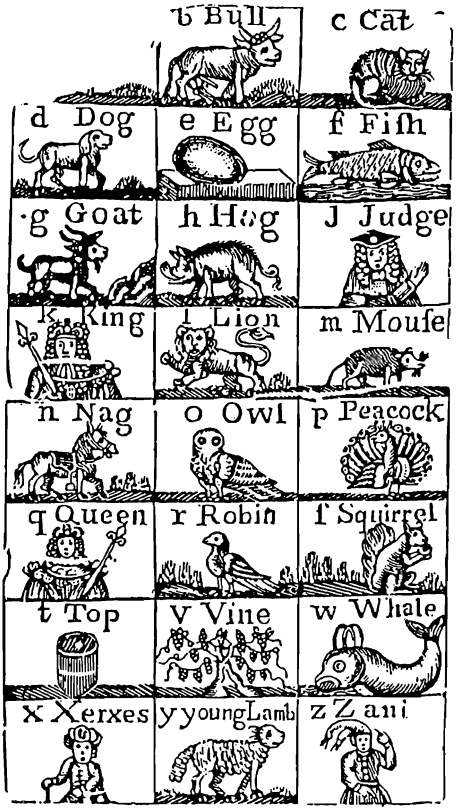


Fig. 1 An eighteenth-century child's primer

adapter. He and his informant are practical people with practical purposes. The adapter is illiterate. The informant has something which the adapter wants. The informant possesses a conventional series of spoken names and a conventional series of written signs (Tables I, II) in an order as old, at least, as the "cuneiform alphabetic" writing from Ras Shamra, ancient Ugarit, in North Syria.[64] Testimony from the early Roman empire informs us how the alphabet was learned then; it is a fair assumption that

[64] Although the Ugaritic abecedarium has 30 signs instead of 22; of the first 27 signs, five drop out in the later West Semitic abecedarium; signs 28–9 are developments of the first sign (=[ʔa]) and signify [ʔi] and [ʔu] respectively. Sign 30 (= [š]) may have been added for recording the Hurrian language (see Gordon, 1950; Albright, 1950a: 12–14; Gelb, 1958: 6–7). For principles that might govern the order of signs in the West Semitic signary, see Driver, 1976: 181–5.

the adapter learned it in just the same way.[65] Dionysios of Halikarnassos (*Demosthenes* 52) writes, about 30 B.C.:

πρῶτον μὲν τὰ ὀνόματα τῶν στοιχείων τῆς φωνῆς ἀναλαμβάνομεν, ἃ καλεῖται γράμματα· ἔπειτα ⟨τοὺς⟩ τύπους τε αὐτῶν καὶ δυνάμεις.

First we learn the names of the elements [στοιχεῖα] of the sound [i.e., of the language], which are called letters [γράμματα]. Then we learn their shapes and their phonetic values [δυνάμεις[66]].

The Roman educator Quintilian, younger contemporary of Dionysios (born A.D. 30), complains of the harm brought to his students by this manner of learning the alphabet (1.1.24–5):

neque enim mihi illud saltem placet, quod fieri in plurimis video, ut litterarum nomina et contextum prius quam formas parvuli discant. obstat hoc agnitioni earum non intendentibus mox animum ad ipsos ductus, dum antecedentem memoriam sequuntur. quae causa est praecipientibus, ut etiam, cum satis affixisse eas pueris recto illo, quo primum scribi solent contextu, videntur, retroagant rursus et varia permutatione turbent, donec litteras qui instituuntur facie norint non ordine. quapropter optime sicut hominum pariter et habitus et nomina edocebuntur.

I am by no means pleased by the ordinary practice of teaching to small children the names of the letters and their order before teaching the shapes. This practice prevents the children from recognizing the letters, since they do not pay any attention to their actual shapes, but simply repeat the memorized series of sounds. This is the reason why, when teachers think that they have sufficiently drilled the student on the correct order in which to write the letters, they reverse that order, then create every manner of sequential permutation, until the student can recognize the letters from shape alone and not from their place in a certain order. It will be a great improvement, I think, to teach both the appearance of the letters and their names at the same time, just as we associate individual names with individual men.

The Semitic term *higgāyôn*, perhaps from a root meaning "to hum continuously," to designate the signary suggests that the Semite learned his ABCs in the same way.[67] This manner of learning how to read and write must underlie the use of Greek ἀναγιγνώσκειν, "to figure out," and Latin *legere* "to pick out," to mean "to read." If in fact this procedure goes back to the invention of the West Semitic signary, Quintilian is complaining about a practice that is already 1,500 years old!

[65] Cf. *LSAG* 25–6. Also, *GrGr* 140; Yzeren, 1911; Nilsson, 1952: 1032–3.

[66] For this meaning of δυνάμις, see LSJ s.v., IIIb.

[67] See Driver, 1976: 90; *LSAG* 26. But the meaning of *higgāyôn* is highly uncertain.

In spite of Quintilian's complaints, the original function of the series of names was to facilitate instruction. A spoken series of names, like a metrical line, is perceived as an articulate unit having its own integrity. The structure of the series, its memorized beginning, sequence, and end made evident any omission. If someone is presented with a series of 24 different signs, forbidden to verbalize them, and required to list them by writing, he will have difficulty recreating the list. He will need to count the signs to be sure they are all there, and he will need to check that none have been repeated. By associating the shapes in a written series with an ordered series of names, the student is assured of completeness. American school children are familiar with a similar mnemonic, pedagogic device in the "ABC song." The naming system was analogous in function to that used by the American army code-breakers in the Second World War, who eliminated ambiguity in aural communication by naming the letters *A*ble, *B*aker, *C*ast, *D*og, *E*asy, *F*ox, *G*eorge and so forth. Another example is the Japanese "poem" called *Iroha* after its first three syllables, really a clever organization of the sounds of the Japanese syllabary into an approximately denotative structure. Created by a Buddhist priest named Kobodaishi sometime in the ninth century A.D., the *Iroha* reads, in transliteration:[68]

Iro ha nihoheto chirinuru wo!
waka yo tare so tsune naramu?
ui no okunama
kefu koyete
asake yume mishi
wehi mo sesu

and means something like:

Color, though fragrant, is a passing thing.
Who in this world will remain unchanged?
If today one passes over deep mountains of a transitory reality,
One no more sees meaningless dreams,
And yet is not intoxicated.[69]

[68] R. Lange, 1922: 10–11; Jensen, 1969: 194–5, 198. I translate the German version quoted in Jensen.

[69] One might further compare the mnemonic device whereby we designate the lines of the musical staff by Every Good Boy Does Fine (or, in England, Deserves Fruit or Figs or Favour); or the mnemonic sentence encoding the proper order of the divisions of classification in the biological sciences: King (kingdom) Philip (phylum) called (class) our (order) fine (family) goulash (genus) "swill" (species); or the mnemonic rhyme for the order of the planets: Mary's violet eyes make John stay up nights, period (courtesy of Michele Hannoosh); or even the irreverent rhyme current among American medical students wishing to learn the twelve cranial nerves: On (olfactory) old (optic)

This method of learning a signary – the conventional order of names in the West Semitic signary is the oldest historical example – creates conditions whereby the spoken and written series can keep signs rarely or even never used; or the series can be modified to omit such signs, or be supplemented by new signs or old signs altered to fulfill a different purpose. All of these developments we find in the history of the Greek signary.

The individual names of the West Semitic series, either common nouns or gibberish (perhaps once common nouns), helped in another way to learn the signary. The initial phoneme of the (spoken) name was the same as one of the phonemes represented by the (written) sign. Thus we say "A is for Ape," "B is for Bear," "C is for Cock," or as in T. Bewick's eighteenth-century primer illustration (Fig. 1)[70], "B is for Bull," "C is for Cat," "Q is for Queen," "W is for Whale," "X is for Xerxes," "Y is for Young Lamb," and "Z is for Zani." It does not matter that "C" can also begin "City"; or that, phonetically, "Queen" begins with [kw]; or that "Whale" begins with [h]; or that "Young Lamb" might have been "Youth" or "Yak"; or that children in primary grades have little familiarity with the Persian invasion of Greece. The names do not necessarily respect a tiro's knowledge of the world, being but one part of a conventional and arbitrary threefold complex – *name*, *phonetic value*, *sign* – that all go together in the tiro's efforts to master the writing.

Excursus: *the so-called acrophonic principle*

It is as well to point out that this explanation of the function of the names of the West Semitic signary runs contrary to a prevalent theory of the origin of the signs from original pictograms, often said to be of Egyptian origin, that were later simplified into linear designs.[71] The theory goes like this: Once upon a time someone chose the pictogram "bull" from the hundreds of Egyptian signs because the first phoneme of the Semitic word for "bull" (= *ʾalf*) is /ʾ/ = glottal stop, and the creator of this signary wished "glottal stop" to be the first phoneme represented in his series of signs. Later the picture of a bull was schematized to three-stroke ✻. Having found his sign to represent "glottal stop," the creator of this writing tradition then chose the Egyptian pictogram "house," because the initial phoneme of the Semitic name for "house" (= *bēt*) was /b/, the second

Olympus' (oculomotor) towering (trochlear) tops (trigeminal) a (abducens) fat-(facial)assed (auditory) German (glossopharyngeal) viewed (vagus) some (spinal accessory) hops (hypoglossal) (my thanks to H. Howe for the last example).

[70] Bewick, 1962: pl. 209.

[71] Cf. Gardiner, 1916; Driver, 1976: 156–61.

consonant that the creator wished to represent in his series. Later the pictogram "house" was schematized as 9. And so forth. It is as if the fashioner of the English alphabet decided that first he wished to represent the phoneme /s/, then chose an object whose name began with this phoneme such as "snake," then drew a picture of a snake to represent the phoneme, which was simplified into the winding, serpentine shape "S." This is the "acrophonic principle," the theory of an historical origin of a sign's value from the first "element" of some word, whether the word is represented by a picture or an abstract representation.

Apart from the dubious assumption that real phonemes were isolated in this way in the transition from logo-syllabic Egyptian to syllabic West Semitic, there are other difficulties.

(1) The signs of the West Semitic signaries bear little resemblance to the objects they are said to name.

(2) Only 13 of the 22 Semitic names are claimed to be meaningful (*ʾalf* = "ox-head," *bēt* = "house," *wau* = "hook," *ʒai* = (probably) "weapon," *yōd* = "arm," *kaf* = "palm," *lamd* = "ox-goad," *mēm* = "water," *nūn* = "fish," *ʿain* = "eye," *pē* = "mouth," *rōš* = "head," and *tau* = "mark"; but the names *nūn* and *mēm* are probably simply the continuants *nn* and *mm* with a schwa (an unstressed vowel) in between and should be removed from the list); five have doubtful meaning (*gaml* = camel? throw-stick?, *delt* = door?, *semk* = fish?, *qōf* = monkey?, *šin* = tooth?); four cannot be explained (*hē*, *ḥēt*, *ṭēt*, and *ṣādē*).

(3) More than one name can be attached to the same sign in the tradition (the sign called *nūn* = "fish" in Hebrew is *naḥash* = "serpent" in Ethiopic).

Although the doubtful and meaningless names may once have been meaningful, the loss of clear denotation does not harm the names' capacity to serve the mnemonic function for which they first were chosen. The acrophonic principle wrongly ignores the primary function of sign names as a mnemonic device designed to assist the learner.[72]

The adapter and his informant, face to face

The Greek adapter faced more difficulties than a native speaker of Phoenician because, even if the Greek knew some Phoenician, his ear, like our own, was ill-attuned to the different phonemes of Semitic speech. The Phoenician heard salient differences in the point of articulation of certain sounds where the Greek's ear was attuned to particular vowel colors. Thus

[72] See Gelb, 1963: 111, 138, 141, 143, 251, 284; and Appendix 1.

to the ear of a speaker of Arabic, English *caught* and *cat* have the "same vowel" but begin with different consonants. A similar distinction in point of articulation of the velar plosive seems to have characterized Phoenician *qōf* and *kaf*, a distinction which the adapter attempted to preserve in *qoppa* and *kappa*. The difference in sound was not phonemic in Greek and led to much trouble, as we shall see.

The adapter received from his Phoenician informant a list of names and a list of signs. The informant was working closely with the adapter in the adapter's struggle to master the system. The informant did not, of course, propound rules to his illiterate colleague, but taught him as he himself was taught, by example and demonstration. We can assume that the informant could accomplish the following:

(1) He could speak, without writing, the string of *names*.
(2) He could hardly speak, without writing, the *phonetic values* communicated by the signs, without adding some nonsense vowel to the consonant. Thus when giving the phonetic value for the sign called *bēt*, he would say *bə*.
(3) The informant could perhaps write the series of *signs* with or without the accompanying names or the en-syllabled sounds.
(4) He could write a text of his own choosing for demonstration, sounding out, syllable by syllable, the text as he wrote it.
(5) He could read the text, when written, out loud, syllable by syllable, pointing out each sign as he sounded it, then repeating it as a whole.

At some point there came a demonstration of (4) and (5), when the informant wrote something in Phoenician for the benefit of the adapter. Perhaps he wrote, from right to left, his own name:

←
𐤋 𐤏 𐤁 𐤁 𐤀 𐤊 𐤍 𐤀
ˣl ˣʿ ˣb ˣb ˣʾ ˣk ˣn ˣʾ
= →
ʾnk ʾbbʿl

As he writes each sign, the informant first says the name of the sign, then he gives the pronunciation of the sign, adding the correct vocalization. For the sake of illustration, we might imagine that he says "*ʾalf-ʾa*" (name-sound) as he writes 𐤀; "*nūn-nə*" as he writes 𐤍; "*Kaf-kə*" as he writes 𐤊, and so forth. He reads out the whole:

ʾanek ʾAbibaʿel
= I (am) Abibaal

except of course we cannot know how it sounded.

Through repeated examples the informant eventually communicated, in a practical way, how the system works:

(1) The written sign corresponds to a spoken name.
(2) The first sign in the written name of the sign is normally the sign to which the name corresponds.
(3) The written sign also corresponds to a sound – a certain consonant plus some vowel or other.
(4) One sound of the sign is contained in the name of the sign.
(5) When I show you a sign, you should be able to give both the name of the sign and a syllable containing the sound of the sign.
(6) When I say the name of the sign, you should be able to write the sign, and give a sound syllable.
(7) If I speak a sound syllable, you should be able to write the sign, or speak the name of the sign.
(8) If I show you a series of signs composing a word, you should be able to say the names and come up with a series of sounds contained in the spoken word.

At some point the adapter asks the informant to write something in Greek – his own name, for example. The Phoenician writes and while writing says:

←
𐤉 𐤇 𐤔 𐤃 𐤌 𐤀 𐤐
im ēh s ēd ēm al ap

that is,

→
παλαμηδης ειμι

Having received his instruction, the adapter quickly made changes that were to have epoch-making consequences. Let us examine the specific differences between the informant's model and the adapter's new creation. Let us consider what the adapter did to the shapes of the Phoenician signs; then what he, or his immediate successors, did to the names of the signs, and to their sounds; finally, let us consider the special problems that attach to two groups of letters in the Greek series: the four sibilants Ξ *zēta*, Ξ *xei*, Μ *san*, and Σ *sigma*, and the three letters at the end of the series after *tau* which have no model in the Phoenician, the so-called supplements Φ *phei*, Χ *khei*, Ψ *psei*.

The shapes of the letters[73]

The letters...are pictures of invisible sounds, and have, like sounds, the sequence of earlier to later; they have properly speaking no up and down or right and left. (B. Einarson)[74]

Before remarking on those Greek shapes which we can take to be closest to the adapter's version, it is necessary to say a word about the evident variety of archaic Greek letter forms in general, such as those presented in Table II, column d.[75] I will not be concerned with the details of these variations, which have even been used to support theories of multiple creation, except to note that they arose in circumstances of restricted literacy. As long as the adapter and his first students or imitators were in a community of their own, in which variations arose and were tolerated, generally adopted, or abandoned, we have what we can call the "very early" stage of the Greek alphabet. As soon as one or two of the adapter's followers settled in another community, control by consensus stopped and there arose the diversification of letter forms that characterizes the local scripts of archaic Greece, a diversification fostered by the provincialism of the eighth and seventh centuries and the geographical isolation of early literate groups. By contrast, the ecumenism of Greek society in the fourth century B.C., and the influence of Athenian literature, sponsored the Greek Koinē language and the widespread adoption of the Ionian script.

In conditions of restricted literacy, a single man's alteration of his model, through error or some other reason, will be accepted by his students and passed on as canonical. If my teacher writes ƨ for "S" or И for "N," I will do the same, and so will my pupils in their turn. This sort of error is so easily made that the appearance of the same backward form in another place does not imply a direct connection.[76] In a similar haphazard way five-stroked *mū* lost a stroke, an extra stroke was added to four-stroked sigma, or *(h)ēta* with three cross bars added a fourth bar, or lost a bar. Such formal variations are common in archaic Greek inscriptions and it is hard to be sure, in view of our highly limited sample, what evolutionary significance they have, if any.

Other variations in letter shapes arose to avoid confusion, just as in continental Europe today 7 is written for 7 in order to distinguish it from 1, which in the European style is written with an exaggerated upstroke on the left (1). Yet some Americans and British will write 7 too, because they

[73] Cf. Larfeld, 1914: 211–64, paras. 147–72; *LSAG* 21–42; Klaffenbach, 1966: 37–43.
[74] Einarson, 1967: 5.
[75] Culled from the table at the back of *LSAG*.
[76] Cf. *LSAG* 14.

have seen the European form and affect it, although in America and Britain the numeral one is ordinarily written in cursive as a simple vertical stroke l. In the archaic Greek alphabet sometimes *rhō* (𐤓) acquired a leg (𐌡), perhaps to distinguish it from *delta*. In Corinth, *epsilon* when it has the value η, acquired the same shape that *bēta* has elsewhere (𐌁), perhaps a rounded form of closed (*h*)*ēta* (𐌇).[77] Four-stroked crooked *iōta* (𐤉), so like *sigma* (𐤔), became a straight vertical line (𐌉). When forms close to the corresponding Phoenician forms appear in archaic inscriptions, we can take these as the original Greek forms. When we observe that the Greek forms are always without exception different in some way from the Phoenician, we ought to suspect that variation away from the Phoenician model has taken place very soon, at the hands either of the adapter or of a very early transmitter. For example, *sigma* (𐤔) from Phoenician *šin* (𐤔) always appears with a vertical orientation, although the Phoenician form is invariably horizontal. Inasmuch as the Greek vertical orientation has no advantage, and even causes difficulty from its similarity to crooked *iōta* (𐤉, 𐤊), we should conclude that the change in orientation took place at the time of the transmission itself or shortly thereafter.

Let us now compare the shapes of the Greek letters with those of their Phoenician predecessors in order that we may arrive at some general conclusions on the changes that have taken place in letter forms between Phoenician and Greek.

The Greek letter shapes fall into three rough categories: (1) shapes in essence identical to the Phoenician model; (2) shapes which have been rotated around a central axis; (3) and shapes with an unclear relation to the Phoenician original (for the following, cf. Tables I, II).

(1) More than half of the archaic Greek signary, fifteen letters, are essentially identical to their Phoenician counterparts:

gamma (𐌂 < 𐤂)
delta (𐌃 < 𐤃)
epsilon (𐌄 < 𐤄)
ʒēta (𐌆 < 𐤆)
(*h*)*ēta* (𐌇 < 𐤇)
thēta (⊕ < 𐤈)
kappa (𐌊 < 𐤊)
mū (𐌌 < 𐤌)
nū (𐌍 < 𐤍)
xei (𐌎 < 𐤎)

[77] *LSAG* 114–15.

omicron (o < o)
pei (𐌐 < 𐤐)
qoppa (Ϙ < 𐤒)
rhō (Ρ < 𐤓)
tau (Τ < 𐤕)

(2) About a fourth of the signary, six letters, have shapes similar to their Phoenician models but rotated on an axis, or inverted as in a mirror, or both, as follows.

(i) Sidelong *alpha* (⊁ < 𐤀) definitely appears only once in all Greek epigraphy, on the famous Dipylon oinochoe; there are three other very dubious examples.[78] It is rotated, however, 180 degrees from the Phoenician, a mirror image of the original. In its usual Greek upright position (Α < 𐤀), *alpha* is rotated 90 degrees, compared to the Phoenician.[79]

(ii) *bēta* in a Theran form has been inverted (𐌁 < 𐤁), but otherwise always maintains some vestige of its original downward, leftward hook. More than any other letter *bēta* is subject to arbitrary variations in style, appearing as 𐌂 in Corinth, as ᴎ in Melos and Selinous, as 𐌃 in Argos, as Ↄ in the Cyclades, and as 𐌁 elsewhere. The controlling formal idea remains "a vertical stem with curled ends."[80]

(iii) *lambda* is rotated 180 degrees (Λ < 𐤋) or reflected in a mirror (Ꞁ < 𐤋).

(iv) *sigma* is made vertical, rotated 90 degrees (Ϟ < 𐤔).

(3) Four letter shapes have a more problematic relation to the Phoenician originals: *wau* (𐌅 < 𐤅), *upsilon* (Υ < 𐤅), *iōta* (Ι or ι < 𐤉) and *san* (Μ < 𐤔).

Phoenician *wau* (𐤅) plays a unique role in the transmission because it alone generates two shapes and two phonetic values in the Greek signary:

[78] The two examples of tilted *alpha* on the Hymettos sherds (Langdon, 1976: nos. 70 and 71) are hardly comparable to the form on the Dipylon oinochoe; sidelong *alpha* claimed for a tiny sherd from Pithekoussai (Guarducci, 1964: 129) seems to be a Phoenician character (McCarter, 1975b: 140–1).

[79] I have noticed when writing Greek in archaic letter forms that in the combination

←Ϟ⊁Ⅎ

→ = και

the *kappa* and *alpha* easily become confused, when the > of *kappa* breaks the vertical line. Perhaps it was the need to write unambiguously this ever-recurring combination that encouraged the shift in *alpha*'s orientation to the vertical:

←ϞΑⅎ

The Semite had turned his *'alf* in the other direction from *kappa* and of course had no common και.

[80] *LSAG* 23.

Greek consonantal *wau* (𐌅) (called *digamma*, "double *gamma*," after its shape), and Greek vocalic *upsilon* (𐌖). Greek consonantal *wau* (𐌅) has a shape different from usual Phoenician *wau* (𐌅 < 𐤅), although Greek *wau* keeps the same sixth place in the abecadarium as Phoenician *wau*, while vocalic Greek *upsilon* (𐌖), appended to the end of the series after *tau*, does preserve the shape of usual Phoenician *wau* (𐌖 < 𐤅). How can we explain that the new vocalic letter *upsilon* has the shape of old Phoenician consonantal *wau*, while the Greek consonantal *wau* (*digamma*) has the same place in the series as Phoenician *wau*, but a different shape?

In cursive Samaritan, a variety of West Semitic writing closely related to Phoenician, a form survives = 𐤅, perhaps from the reign of Jeroboam II (*c.* 774–761 B.C),[81] that comes close to Greek *wau*. Guarducci and Jeffery have wondered if the shape of original Greek *wau*, may, therefore, come from a Samaritan script, while Greek *upsilon* comes from the Phoenician script.[82] This is hardly likely, for the adapter has received a single model at a single time.[83] There is no serious problem here; Greek *wau* and *upsilon* are simple variations on the formal theme, "upright with twin extensions."

The original Greek shape of *iōta* must have been some kind of vertical zigzag (𐌉), different from the ordinary Phoenician 𐤉.[84] Another eighth-century B.C. Samaritan cursive form (𐤉) comes close to the Greek form[85] as does, perhaps, a Phoenician example on an inscription from Kition, where the horizontal stroke has become detached (𐤉).[86] Having written 𐌅 for *wau*, the adapter may have fashioned zigzag *iota* 𐌉 because of the similarity between Phoenician *yod* 𐤉 and his own *wau* 𐌅.[87] In any event, the Greek zigzag was quickly simplified in some varieties to a straight vertical line, no doubt to distinguish it from the nearly identical *sigma* 𐌓. Vertical *iōta* appears already on the Hymettos sherds from Athens, *c.* 700 B.C. and later (below, 134ff.).

[81] Driver, 1976: 109. [82] *EG* I 76–7; *LSAG* 24–5.

[83] A close model to the style of archaic Greek *wau* = 𐌅 was recently published by A. Heubeck in the "Würzburger Alphabettafel" (1986). The lead tablet, found in the Faiyum and claimed, on very dubious grounds, to date to the eighth century B.C. or earlier, is inscribed on both sides with 24 abecedaria which end with the letter *tau*, one after the other. Though Heubeck takes the writing to be the Greek alphabet, it is not possible to tell. There are only two ways to recognize a Greek alphabet – it contains characters peculiar to a Greek alphabet (absence of characters normally in the minimum alphabet has no weight), or the function of the letters is that of Greek. The Würzburg Tablet, *prima facie* oriental, passes neither test. There are three other similar tablets, unpublished, two of them in New York. The tablet may present a form of the West Semitic signary formally closer in several respects, including the shape of *wau*, to the adapter's model than other extant examples of West Semitic writing; but the tablet's uncertain date leaves open the possibility that the letter forms have been influenced by the Greek alphabet.

[84] The Würzburg Tablet has 𐤉 for *yod*: Heubeck, 1986: fig. 3. [85] *LSAG* 18, 29.

[86] Cf. Coldstream, 1982: 271. [87] I owe the suggestion to R. Janko.

Another cursive Samaritan form, of *ṣādē* (= 𐤑), may preserve a form closer to the adapter's Phoenician model for *san* M than surviving Phoenician lapidary examples (= 𐤑).[88]

Conclusions from letter shapes

From the variation in stance of some letters in the Greek series – we might even say indifference to stance – it appears that the adapter and his followers did not regard the direction of the signs as essential, nor regard the signs as figures which can face only forward or back, as did the Phoenicians and later Greeks. He turned letters upside down, reflected them as in a mirror, or rotated them on the axis. For a long time to come the Greek engraver of dies for coins will invert a letter if it better suits his design or fits the space.

The adapter's model was probably not, *ex hypothesi*, written on stone or bronze, as are surviving examples of Phoenician writing, but on a perishable material. The parallel of the Samaritan cursive forms agrees with this notion. Writing material affects letter shape; a lapidary style is convenient for writing on hard material and a cursive style for writing on soft. Because surviving examples of Phoenician writing are lapidary, we can not, on present evidence, be sure of the adapter's model. Papyrus must remain the primary candidate for the adapter's writing material, a substance known to Homer (*Od.* 21.391) and presumably named after Phoenician Byblos ($g^{\times}b^{\times}l^{\times}$); the adapter may well have acquired his set of symbols inscribed on a diptych such as the fourteenth-century B.C. example made of wood recently found at Ulu Burun.[89] Through misunderstanding or ingenuity the adapter seems to have made immediate changes in his model. From the letter shapes alone he does not approach his model in the spirit of a man who has learned its workings intimately.

THE NAMES OF THE SIGNS[90]

...ὅτιπερ ἂν Ἕλληνες βαρβάρων παραλάβωσι, κάλλιον τοῦτο εἰς τέλος ἀπεργάζονται.

[88] Cf. *LSAG* 33; Naveh, 1973: 6, note 14. The Würzburg Tablet presents a *ṣādē* identical to the Greek *san* (above, note 83).

[89] Bass–Pulak, 1986. The Greek word for writing tablet, δέλτος (Aesch. *Eum.* 275; *Prom.* 789), from Phoenician $d^{\times}l^{\times}t^{\times}$ = "door," "writing tablet," may even come into Greek at the moment of transmission. Cf. Wiseman, 1955; Burkert, 1984: 32–3.

[90] Cf. Hammarström, 1930; *GrGr* I 140–1; W. S. Allen, 1987: 169–73. Summary of scholarship on Semitic letter names in Jensen, 1969: 271–4. For the following discussion, I owe much to A. Sihler.

...whenever Greeks take anything from non-Greeks, they eventually carry it to a higher perfection. (Plato, *Epinomis* 987d)

In ascertaining what changes the names of the Phoenician signs have undergone, we ought to know the original forms of the Phoenician names. However, no named Semitic abecedarium exists from the early period. Although it may be safe to assume that they were "something like" the Hebrew and Arabic names, even those sets of names differ in many details: the Phoenician names were no doubt different too. The conclusions to be drawn from a comparison of letter names are therefore circumscribed by our ignorance of the details of the pronunciation of the Phoenician names, and details count in questions like this. Because much confusion attends this issue, it is well to say a few words about the forms of the Semitic names that one commonly encounters in writings about the Greek ones.

A note on the Semitic letter names

The early names of the Semitic signary are inferred, with all the dangers that attend such reconstructions, from the Greek transcriptions in the Septuagint (*c.* third century B.C.), where the Semitic signary is used to arrange in order the verses in Lamentations, and from nearly identical forms in Eusebius (*Praepar. evang.* 10.5).[91] There is also much later Semitic testimony in the Masoretic commentary to the Hebrew scriptures.[92] I give the Septuagintal names of the Hebrew signary in the first column. In the second column I give Th. Nöldeke's reconstruction of the Phoenician names based upon comparison of all sources of information ancient and modern, the forms I have so far used without explanation.[93] In the third column I give those forms found in Jeffery's classic *The Local Scripts of Archaic Greece*, a typical standard transcription of the Semitic sign names.[94]

αλφ, αλεφ	ʾalf	ʾaleṯ
βηθ	bēt	bêṯ
γιμλ, γιμαλ, γιμελ	gaml (geml)	gimel

[91] Cf. Rahlfs, n.d.: 756, note to Lam. 1; Rahlfs, 1979: 287–303.

[92] See Berliner, n.d.: 15–16.

[93] Nöldeke, 1904: 134. I have, however, added the sign for "glottal stop" (ʾ) before Nöldeke's *alf*.

[94] *LSAG*: 21–35. Jeffery apparently took these forms from the second edition (1954) of G. R. Driver, *Semitic Writing from Pictograph to Alphabet*.

δελφ, δαλεθ, δελεθ	delt	dāle̲t
η	hē	hê'
ουαυ	wau	wāw
ζαιν, ζαι	zai (zain?)	zayin
ηθ	ḥēt	hê̲t
τηθ	ṭēt	ṭê̲t
ιωθ, ιωδ	yōd	yōd̲
χαφ	kaf	kap̲
λαβδ, λαβεδ, λαμεδ	lamd	lāmed̲
μημ	mēm	mēm
νουν	nūn	nûn
σαμχ, σαμεχ	semk (samk)	sāmek̲
αιν	ʿain	ʿayin
φη	pē	pē'
σαδη, τιαδη	ṣādē	ṣādê
κωφ	qōf	qōp̲
ρης, ρηχς	rōš (rēš)	rêš
σεν, χσεν	šin	šîn
θαυ	tau	tāw

From the variants in the Greek forms we see that considerable uncertainty exists about the vocalic qualities of the names, with free variation between α and ε or the omission of the vowel entirely in the presence of sonorants (e.g. λ or μ). The consonants we can accept with some assurance, though the Greek has apparently tried to express sounds unfamiliar to him with τι- in τιαδη and χσ- in χσεν, and with the aspirated plosives θ and φ in various names. Apart from the hypothetical nature of the transcription Jeffery uses, and of similar efforts, it is unlikely that good agreement will exist in the minds of most readers about the difference in pronunciation between, for example, [ê] (as in *bĕ̲t*) and [ē] (as in *mēm*), or between [p] and [p̲]. I use Nöldeke's reconstruction in Tables I and II and elsewhere because they are more or less pronounceable and eschew such rarified and unlikely distinctions, though they remain a reconstruction built by extrapolation from later testimony and parallels, above all from the parallel of the Greek names.

The forms of the Greek names

Given these conditions of uncertainty, we may attempt to summarize the adapter's treatment of the names of the original Phoenician signs. The forms of the Greek names are widespread and traditional, some of them

reaching back as far as the fifth century B.C.[95] We may recognize five categories:

I. Names adapted with little change (3 names):
wau (ϝαῦ)[96] from *wau*
tau (ταῦ) from *tau*
pei (πεῖ) from *pē*

II. Names to which is attached terminal *alpha* (12 names):
alpha (ἄλφα) from *ʾalf*
bēta (βῆτα) from *bēt*
gamma (γάμμα, γέμμα[97]) from *gaml*
delta (δέλτα) from *delt*
*ẓēta** (ζῆτα) from ? *ṣādē*
(h)ēta (ἦτα) from *ḥēt*
thēta (θῆτα) from *ṭēt*
iōta (ἰῶτα) from *yōd*
kappa (κάππα) from *kaf*
lambda (λάβδα, λάμβδα[98]) from *lamd*
qoppa (ϙόππα) from *qōf*
*sigma** (σίγμα) from *ʔsemḵ*

* See also category V.

III. Names which lose a terminal consonant (nasal or sibilant) (3 names):
mu (μῦ, μῶ[99]) from *mēm*
nū (νῦ) from *nūn*
rhō (ῥῶ) from *rōš*

IV. Names nearly identical with the sign's phonetic value[100] (3 names):

[95] The earliest seems to be σάν in Pindar, fr. 70b3; others are found in Athenaeus 453–5; Hdt. 1.139; Aristoph. *Eccl.* 684–6, 920, *Lys.* 151; Pl. *Crat. passim*, *Theaetet.* 203; Xen. *Mem.* 4.2.13, *Cyrop.* 7.1.5, *Hell.* 4.4.10. For fourth-century inscriptional evidence, see Meisterhans, 1900: 5.

[96] The form ϝαῦ for the Greek name is inferred from ουαυ of the Septuagint and indirectly attested by a statement in Cassiodorus (above, note 13). The original pronunciation of Greek *wau* (and *tau*) may have been *waϝ* (and *taϝ*); it is little more than convention to write the diphthong -αυ rather than -αϝ, when in verse αυ behaves like αϝ, the syllable being long before a consonant and short before a vowel with no question of hiatus (C. Murgia has pointed this out to me).

[97] The Ionians, especially Demokritos, were said to use the form γέμμα (Eustath. 370.12; Diels–Kranz, 1951–2: 2.19).

[98] *lambda*, though mostly a postclassical phonetic change from *labda* (cf. Nöldeke, 1904: 125; Einarson, 1967: 3–4; W. S. Allen, 1987: 3, 171), is attested in Photius, *Lex.*, under λ, as a form used by the fifth-century comic poet Eupolis.

[99] Also attributed to Demokritos (above, note 97).

[100] But not completely identical: thus ε and ο are generally used for short vowels and υ has two values at all periods of Greek linguistic history (until vowel length was lost), whereas the names are all pronounced with long vowels.

ei (later *epsilon*) (εἶ) from *hē*
ou (later *omicron*) (οὖ) from *ʿain*
u (later *upsilon*) (ὖ) from *wau*

v. Names of problematic origin (4 names):
ʒēta (ζῆτα) from ? *ṣādē*
xei (ξεῖ) from ? *šin*
san (σάν) from ? *ʒai*
sigma (σίγμα) from ? *semk*

Observations

We can make two general observations about the relationship between the Greek and Phoenician names of the letters.

(a) If the Phoenician names for the letters were anything like the Hebrew or Arabic, most of them would have been literally unpronounceable to a Greek, because they ended in finals not permitted in Greek;
(b) the names in Greek guise never have more than two syllables.[101]

The evidence points to two principles of general application.

(1) The method of adapting letter names with unpronounceable finals looks consistent, namely, adding a prop-vowel at the end. This is always -α.[102] Such uniformity is unremarkable: there is no reason why different vowels should have been added to different names.

(2) The first syllable of the resulting Greek name is always long and always receives the pitch accent. Most were already heavy, either by position, as ἄλφα, δέλτα, and so forth, or by nature as θῆτα, ἰῶτα. Where, evidently, the Phoenician prototype offered neither a long vowel nor a cluster, the posttonic consonant was lengthened, so that we find the spellings κάππα, ϙόππα, and, apparently, γάμμα.[103] We might compare the doubling of the [t] in the common pronunciation of English *thirteen*, *fourteen*, as "thirt-teen," "fourt-teen" under the influence of *fifteen*, *sixteen*. σίγμα is in general accord with this scheme, but is unquestionably a special problem (below, 46ff.).

The details of γάμμα <*gaml* require further comment. Since λ is at least marginally a possible word-final consonant in Greek, the original form of the name for γ might have been something like **γάμαλ, whence *γάμμαλ in accord with principle (2), above. All that remained to yield the attested

[101] Until the Byzantine names "epsilon," "omicron," "upsilon," and "ōmega."

[102] Cf. *GrGr* I 140, especially note 3. We can compare the tendency of native speakers of Italian – a language which, like ancient Greek, avoids final plosives – to add terminal [a] to words in English.

[103] Early orthography may not have allowed doubled consonants. Cf. below, 63.

form, a name that fits perfectly into the general pattern, was the loss of the anomalous final -λ.

The form of ῥῶ is not so easy to explain. A Phoenician form remotely like [rōš] or [rēš] would have baffled Greek ears, and the closest that Greek could have come, in accord with the principles I have explained, would have been something like *ρῶσα or *ρῆσα, or else *ρῶς, *ρῆς. Perhaps the name is the result of a listing error in the Phoenician itself where [rōš-šin] is heard as [rō-šin].[104] Such a distortion is unlikely to have taken place in Greek, where the name *šin* is subjected to its own perplexing transformations.

Some features of the Greek names we can explain by mutual interference. As a general rule we expect mutual interference only between immediately adjacent elements, as, for example, in English the vowel of the name for the letter *J* (= *jā*) seems to have been taken over from the vowel attached to the letter *K* (= *kā*). A similar effect certainly has some bearing on the rhyming sequence ζῆτα ἦτα θῆτα where the formation of ἦτα and θῆτα is straightforward and ζῆτα, whatever its prototype (below, 46ff.), has been attracted into the pattern.[105]

The name μῶ attested by Demokritos is likely to be the original form. It is an easy transition from original μῶ to μῦ owing to the attraction of adjacent νῦ.[106] The appearance of presumed Phoenician **mēm* as Greek μῶ suggests that the real Phoenician form of the name may have been **mōm*, just as presumed Phoenician **rōš* has gone to Greek ῥῶ. The loss of terminal nasal consonant in *mū* and *nū* is insignificant; terminal nasals are weakly pronounced in Semitic languages.[107] The final [m] of **mōm* could be lost in Greek rather than in Phoenician before the [n] of νῦ, by assimilation: a Greek would be most reluctant to hear a final [m]. Those Phoenician names that ended in the weak consonant [u] (*wau*, *tau*) remain the same in the Greek forms, as does *pē*.

The names in category IV ("names nearly identical with the sign's phonetic value") I discuss below in connection with the creation of a full vocalic system; the names in category V ("names of problematic origin") are involved with the problem of the sibilants and the problem of the supplements (below, 46ff.).

[104] Cf. Einarson, 1967: 2.

[105] One might compare the pattern of phonetic adaptation found in cardinal numerals, which form a similar repeated series. Proto-Indo-European **septṃ *okto *(h)newṃ *dekṃ(t)* becomes in Russian *syem osyem devet deset*. The names of the numerals influence those beside them in the sequence (my thanks to R. Janko for the observation).

[106] Which would also explain the occasional name ξῦ for ξ: W. S. Allen, 1987: 171, note 3.

[107] Thus Hebrew adds or subtracts final [n] at will, as, for example, *yišmerû* "they will keep," common for *yišmerûn*.

THE SOUNDS OF THE SIGNS

A B C D Goldfish?
L M N O Goldfish.
O S A R Goldfish! (Nursery rhyme)[108]

In the Phoenician language every syllable is open or closed (an open syllable begins with a consonant and ends with a vowel; a closed syllable adds one or two consonants to the preceding vowel). In Phoenician writing, which reflects the phonology of the language, a sign can stand for an open syllable – a consonant plus any vowel – or the sign may close a preceding syllable, in which case the sign stands for a consonant without a vowel. Only context and the reader's knowledge of the language enable him to decide how to treat each sign. The names of the Phoenician signs, as we have seen, are a mnemonic device useful in learning the system and useful to designate aurally this or that sign. The phonetic values of the Phoenician signs could never have served well as the names of the signs because each sign could stand for a multiplicity of values: one consonant plus a variety of vowels, or no vowel. It is axiomatic that the phonetic values of the Phoenician signs are separate from the names, although one possible phoneme is contained within each sign's name. But the phonetic value came first and the name of the sign came second, which is why tradition could attribute more than one name to the sign (above, 25).

In Greek alphabetic writing the situation is the same in that the names of the signs begin with the relevant phonemes, but different in that each graphic sign is limited (mostly) to a single phonetic equivalence, while in Phoenician the vocalization is always implicit in the graphic sign.[109] The ambiguity between the name and the phonetic value of the sign inherent in the Phoenician system has dropped away in Greek, but it was a change unnoticed by the adapter, who continued to use the Phoenician names, somewhat amended, as he had received them, namely as a mnemonic series that preserved the completeness and order of the signary wherein the first sound of any name was the sound of the written sign itself. Had he

[108] The semantic equivalent apparently being dialectal, "Abie, see de goldfish?" "Hell, 'em ain't no goldfish." "O 'es 'ey are goldfish!"

[109] The name ἄγμα, preserved in Priscian (*Inst.* 1.39) as ascribed by Varro to Ion (probably of Khios) for the sound of γ = [ng] (a voiced velar nasal), as in Greek ἄγκυρα, English "thi*ng*," suggests that the name of the Greek sign can be thought of as "containing" the sound of the letter, rather than "encoding the sound of the letter as the name's first phoneme" (cf. W. S. Allen, 1987: 35–6; Einarson, 1967: 3 and note 11). Of course [ng] could not begin a word in Greek. *agma* is really the encoding of a special pronunciation for -γ-; it does not have its own letter form.

understood the ambiguity built into the Phoenician system and its loss, he might have discarded the old names entirely and given the signs names that were closer to their sounds. This is just what his Etruscan, or Roman, successors did, who made the aural series of names into a pattern of monosyllables on the model of Greek *e*, *u*, *o* and *phei*, *khei*, *psei*. Still today we say "A, Bē, Cē, Dē, E, eF, Gē..."[110] But the Greek adapter made only those changes essential to his purpose. His aims were practical and he did not see himself as improving a preexisting system. He accepted the Phoenician names, to him entirely nonsensical, and their function as a mnemonic device, critical for the learning of the system. The Roman, or the Etruscan, who inherited a true alphabetic system ready-made, was in a happier position.

The sounds of the signs named under categories I, II, III, (above, 34–5) seem to have preserved little changed the initial sounds of the Phoenician consonantal signs, with some exceptions. To understand these exceptions, we must recall that a problem the adapter faced in modifying the Phoenician signary in order to record Greek is the existence in the Phoenician signary of too many signs for some sounds and not enough for others. He faced an *embarras de richesse* in having four Phoenician sibilants, while there was only one common sibilant in Greek, namely voiceless [s];[111] from this circumstance derives the problem of the sibilants, which I examine below. The Phoenician signary also distinguishes two [t] sounds, *ṭēt* and *tau*, the first said to be an "emphatic" dental plosive, the second a "plain" voiceless dental plosive.[112] Evidently in the Semitic languages "emphatic" plosives were totally unaspirated, while the "plain" plosives had an appreciable degree of aspiration. For this reason Hebrew names in the Septuagint are regularly transliterated with Greek θ, χ for the "plain" consonants, while the "emphatics" are rendered with τ, κ.[113] Thus the conversion of the Semitic plain [p] into

[110] The evidence, ancient and modern, for the Latin letter names, in Gordon, 1973. Cf. also, Schulze, 1904.

[111] Voiced *s*, that is [z], appears in certain phonetic environments in Greek words, but was not recognized by the Greeks, until much later, as a phoneme. The original value of *ẓēta* seems to have been [ds] (or [dz]) then by metathesis [sd] (or [zd]) (W. S. Allen, 1987: 45–6, 56–9), although this matter is controversial. In Tables IV and V I give the value of *ẓēta* as [dz].

[112] Moscati, 1980: 31. "Emphatic" is a wholly arbitrary term used in Semitic grammars for what phonetically are apical consonants articulated with the tongue placed high and to the back of the mouth. They should more properly be called *velarized* consonants and are phonetically parallel to *palatalized* consonants, which are consonants coarticulated with the tongue placed high and to the front of the mouth, and to *labialized* consonants, which are coarticulated with lip-rounding.

[113] For example Θαργαλ (Gen. 14.1) but Λωτ (Gen. 14.12); Αριωχ (Gen. 14.1) but Μελχισιδεκ (Gen. 14.18).

Greek φ in ἄλφα is in accord with expectations. This fact has caused many authorities to wonder about the use of Phoenician *tau* for Greek /t/ and *ṯēt* for Greek /th/ when everything actually known about Semitic phonology would lead one to expect the opposite.[114] Whatever was the real distinction between *ṯēt* and *tau* in Phoenician, it seems not to have corresponded to Greek phonology. To *ṯēt* the adapter assigned the value of the aspirated dental plosive /th/, a conspicuous sound in Greek, and to *tau* the unaspirated, voiceless dental plosive /t/.

A parallel distinction to *tau*/*ṯēt* existed between the Phoenician phonemes represented by *kaf* and *qōf*: in Semitic languages *kaf* is described as a "plain" voiceless velar plosive, *qōf* as an "emphatic" velar plosive.[115] Why then did the adapter not take advantage of the contrast between "plain" and "emphatic" and use *kaf* for aspirated /kh/ while he used *qōf* to stand for unaspirated /k/, just as he had made use of a parallel contrast in assigning /th/ to *ṯēt* and /t/ to *tau*? The adapter's translation of the Phoenician pair *kaf*/*qōf* into the Greek pair κάππα/ϘόππαQ points squarely to active participation of the informant in the process of adaptation.

Misplaced helpfulness would inevitably arise from the phonological mismatches between Greek and Phoenician. The adapter, inspired by the astounding notion of writing Greek words with Phoenician scratchings, asks the informant, "'Now, how would you write '*kephalá*'?" The informant naturally suggests *kaf* for the first sign. The adapter then asks, "How do you write '*kúpris*'?" The informant suggests beginning with the sign *qōf*. To the Phoenician's ear, the salient distinction is the point of articulation, as correlated with particular vowel colors, and this distinction requires *qōf* before rounded vowels, *kaf* before unrounded ones. The difference in aspiration, if there was one in Phoenician analogous to those in the attested Semitic languages, would not have been obvious to the informant. Asked for hints how to write the difference between *phónos* "carnage" and *pónos* "toil," the Phoenician would reply, "What difference?"[116]

[114] See A. Schmitt, 1952: 12; Cook–Woodhead, 1959: 177; McCarter, 1975a: 95, note 77; Heubeck, 1979: 89. Jeffery had earlier flatly noted that the "approximate sound of the Phoenician letter [*ṯēt*] found its equivalent in all the Greek dialects" (*LSAG* 29). Guarducci agrees: "il *ṯēt*...che aveva presso i Fenici valore di dentale enfatica" (*EG* I 78–9). [115] Moscati, 1980: 37–8.

[116] Similarly it would never have occurred to the Japanese, on their own, to write the initial sound of *fugu* "pufferfish" with one letter and that of *hagi* "Lespedeza" with a different one. They are, to a speaker of Japanese, the same sound. To a speaker of a language like English, however,

The adapter missed his opportunity to create a pair *qoppa*/*kappa* = aspirated/unaspirated velar, parallel to the pair *theta*/*tau* = aspirated/unaspirated dental. He accepted instead a distinction in usage, attested in early inscriptions, of placing *qoppa* before the vowels *o* and *u* and *kappa* before *a*, *e*, *i*.[117] The adapter did his best to preserve the distinction foisted on him by his informant, and went so far as to generate a troublesome parallel to κ/ϙ in aspirated χ = /kh/ and ψ = */ϙh/ (see "The problem of the supplementals," below 48ff.). These distinctions were not phonemic in Greek. Although *kappa* and *qoppa* are found in archaic Greek abecedaria, by the sixth century *qoppa* begins to lose ground to *kappa*. By the fourth century it is gone (though fossilized in the numerical series).

The Phoenician signary had another pair of like sounds in the fricatives *hē* and *ḥēt*, the first said to be a laryngeal and the second a pharyngeal.[118] Making his vowel *e* from *hē*, the adapter accepted *ḥēt* as the Greek /h/, a voiceless glottal central fricative; the assignment might well have gone the other way. Absence of the [h] sound in the dialect of Greek spoken in Ionia, so-called psilosis, evidently had the result that the sign representing original aspirated *hēta* acquired in time the value of a long [ē], the familiar *ēta* η that reaches Koinē through catholicizing Attic (itself an Ionic dialect but with *hēta* = /h/, until Athens adopted Ionic practice in the reform of 403 B.C.[119]). In some inscriptions *hēta* has both values, /h/ and /ē/.[120] The form ⊦ for /h/ is first used in Tarentum in order to distinguish (*h*)*ēta* = /h/ from (*h*)*ēta* = /ē/.[121] The sign is apparently the left-hand side of "H." Later ⊦ was transformed into the rough breathing mark ῾ just as ⊣, the right-hand side of "H," was transformed into the smooth breathing

such a difference in spelling is inevitable, since we think of [h] and [f] as being different sounds. When Roman characters were adapted to the recording of Japanese someone taught the Japanese to write *ha*, *hi*, *he*, *ho*, but *fu*. Such a use of *f* and *h* makes no more sense to speakers of Japanese now than it did to Japanese then, but in Romaji the Japanese continue to write *f* before u and *h* everywhere else, a typical example of the persistence of meaningless details of orthography (I owe this example to A. Sihler). One might wonder whether Linear B's failure to distinguish [r]/[l] and [k]/[g], although Linear B does distinguish [d] from [t], reflects the phonemic structure of Minoan, through its model Linear A.

[117] Nilsson (1952: 1043–4) suggested that the distinction may have arisen because *k* precedes *a* in the name "*kappa*" and *qoppa* precedes *o* in the name "*qoppa*," but he does not explain why *qoppa* also precedes *u* and *kappa* also precedes *e* and *i*. Rather, the names of the letters reflect the common usage. [118] Moscati, 1980: 41. [119] Cf. Buck, 1955: 141–3; Carpenter, 1935.

[120] E.g. *EG* I 153, 327, 349. For the confusion caused by the presence of vocalic *ēta* in some systems and consonantal *hēta* in others, see Meister, 1921: 221–5; A. Schmitt, 1952: 39–42; *LSAG* 28–9; *EG* I 84–5. For (*h*)*ēta* as both /h/ and /ē/, see inscription 62, below, 169–70.

[121] *EG* I 84, 93–4, 278, 290–1.

mark ʽ. The value /ē/ for η seems, therefore, to have arisen through accident, an effect of local pronunciation, and is not the result of deliberate reform.

Let us now pass to the vocalic system, the adapter's great creation.

THE VOWELS

Die griechische Lautschrift war die Erfindung eines Mannes, der vier oder fünf phönikische Konsonantenzeichen für Vokale verwendete. (B. A. Gercke)[122]

It is therefore foreign peoples, not bound by local traditions and religious or political interests of an alien group, that are frequently responsible for introducing new and important developments in the history of writing. (I. J. Gelb)[123]

The adapter produced a full system of vowel notation by intention, perhaps assisted by inadvertence. He was a practical man with a good ear. He had sharply attuned his senses to finding distinctions of sound. He had succeeded in distinguishing five qualitative differences in the vibration of the vocal cords. Inasmuch as vowel sounds in nature extend across a continuum, his choice of five vowels was to some extent arbitrary. He could have chosen fewer or more signs once the idea of vocalization came to him; the need for a sign for long [ō], which must have been a conspicuous phoneme in Greek, was felt so strongly that *ōmega* was added to the signary early on, and many moderns have regretted the absence of a sign for long [ī] and long [ā]. The adapter was certainly not literate in Phoenician. He had the written signs, the memorized series of the names of the signs, and he witnessed demonstration of how the sounds of the signs are related to the names of the signs. He had his purpose, and he was not interested in unnecessary subtleties. Five vowel signs, without distinction of long or short, were sufficient to his purpose. There he stopped. He made as few changes as possible in his model, but utilized phonetic qualities preexistent in the Phoenician signary. Thus he allowed the affinities between certain "consonantal" sounds in the Phoenician signary and vowel sounds he wished to represent to guide his choice of signs for sounds.

The adapter easily assigned his first vowel /a/ to the first sign of the Phoenician series, *ʾalf*. Like other Indo-Europeans he did not recognize the Phoenician subtle initial light glottal stop as being a consonant in the same way that [b] is a consonant. His informant attached the vowel [a] to the sign 𐤀 when naming it and giving its value: the informant no doubt said

[122] Gercke, 1906: 541.

[123] Gelb, 1963: 165.

"*ʾalf* [name], *ʾa* [sound]," but the adapter heard "*alf–a.*"[124] The affinity between [ʔ] and [a], and the prominence of *ʾalf* as first sign in the Phoenician signary might even have helped suggest to the adapter his invention of the vowel system.[125] He kept the name, *alpha.*

The second vowel sound /e/ he assigned to Phoenician *hē.* The informant said something like "*ḥē* [name], *he* [sound]," but the adapter heard "*e.*" He could hear little difference between the name of the sign and the value of the sign and he called the sign simply *ē* (later spelled *ei*). Unwittingly he discovered how to name a sign after one of its sounds, a discovery which the inventor of the names of the Etruscan/Roman signary would later exploit fully.

I have already noted how the adapter treated Phoenician *wau*, retaining it as the Greek consonant *wau* (ϝ = *digamma*) while splitting off from it a new sign, vocalic /u/ (Υ) which he called *u*, in the same way that he named ε after its sound. The phonetic affinity between [w] and [u] encouraged this division, but the division itself was a response to the adapter's preconceived purpose: the creation of a full vocalic system. The informant perhaps said "*wau* [name], *wu* [sound]."

A similar phonetic affinity between consonantal [y] and vocalic [i] encouraged the adapter's creation of the Greek vowel ι, called *iōta.* The informant perhaps said "*yōd* [name], *yə* [sound]."

The last Greek vowel /o/ the adapter assigned to the Phoenician sign for the voiced pharyngeal fricative, *ʿain.*[126] The assignment of the value /o/ to *ʿain* appears to be a free invention. Perhaps the informant said "*ʿain* [name], *ʿo* [sound]." The Greek adapter, lacking the phoneme /ʿ/, heard something close enough to his /o/ to satisfy his purpose.[127] He called the letter *o* (later spelled *ou*), even as he had named ε and υ after their sounds. The last letter in the Greek series, "big *ō*" (*ōmega*), is not a new letter at all, but a diacritical variation on "little *o*" (*omicron*, as *ou* was later called), ο opened at the bottom (= Ω);[128] *ōmega* is nearly an afterthought

[124] Cf. Praetorius, 1908: 203–4 for a similar argument, followed by Bauer, 1937: 40–1, *LSAG* 21–2, Driver, 1976: 154. Cf. also Helck, 1979: 165–7.

[125] A slight widening of the throat changes consonantal *ʾalf* into vocalic *a.* Historically the phonetic affinity is otherwise attested by the use of the Egyptian hieroglyphic "vulture" = Semitic *ʾalf* for the value [a] in an attempt to spell "Kleopatra" phonetically on the stone that W. J. Bankes brought to England in 1815, used by Champollian in his decipherment (Gardiner, 1957: 14 §10).

[126] Phonetically, *ʿain* is the voiced counterpart of *ḥēt.*

[127] In much later neo-Punic *ʿain* is used to indicate the vowel [o]; perhaps there is an objective similarity. Cf. Gelb, 1963: 292, note 5.

[128] On an early Parian inscription *c.* 700 the values are reversed so that ω = short [ŏ] and ο = long [ō] (Guarducci, 1964: 132, plate XV(4)). Both signs represent /o/ with a distinction in length, one way or the other.

in the Greek signary, which never distinguishes long and short /a/, /i/, or /u/. The Ionian, later Koinē, distinction between ε for [ĕ] and η for [ē] arose, as we have seen, through accident.

Now we must consider briefly the fact that the very ambiguities in Phoenician *ʾalf*, *hē*, *wau*, and *yōd* that proved so useful to the Greek adapter were also noticed and used sporadically in the purely consonantal Semitic writings themselves to suggest vowel qualities. Such signs, so used in Semitic writings, grammarians call *matres lectionis*, "mothers of reading," and writing which contains *matres lectionis* is called *scriptio plena* or *plene* writing.[129] Thus the normal way of writing "David" in old Hebrew would be transliterated as *dwd*, but in *plene* writing the name would appear as *dwyd* where *y* indicates the [i] of the second syllable.[130] What bearing, if any, did the Semitic use of *matres* have on the adapter's invention?

Excursus: "*matres lectionis*"

Vielleicht ist dem Schöpfer der griechischen Schrift von der ganzen Schreibekunst der Phönizier nicht viel mehr bekannt gewesen als die Alphabetreihe, die Zeichenformen und die Faustregel über die Art, wie man mit diesem Material zu arbeiten hatte. (A. Schmitt)[131]

Matres lectionis are a feature of many ancient writings.[132] Egyptian, which like West Semitic writing lacked vowel signs, also used consonants to suggest vowels, especially when spelling foreign names. Akkadian cuneiform, Hittite hieroglyphic, and Persian cuneiform, which had signs representing pure vowels, used these signs as *matres* to reinforce the reading of a preceding syllabic sign, as in writing *da* + *a* to signify *da*. The use of *matres* arose, therefore, in the prealphabetic scripts from a desire to give greater precision in the reading of vowel.

In West Semitic writing *matres lectionis* appear as early as the eleventh or twelfth centuries B.C. when the Aramaeans, who took their writing from the Phoenicians, began to use *yōd* and *wau* to indicate long /ī/ and long /ū/ at the ends of words. The Aramaeans also used *hē* to indicate long /ā/

[129] The phrase *matres lectionis* translates Hebrew *ʾimmoth haqqeriʾah*, referring to a similar usage in the biblical Masoretic text.

[130] In similar fashion the German-Polish Jew wrote *yōd* for [i] and *wau* for [o] when recording German in Hebrew characters.

[131] A. Schmitt, 1952: 11.

[132] For the following, cf. Gelb, 1963: 166ff. Also: Gesenius–Kautsch, 1909: 37–40; Cross–Freedman, 1952: 33–4. For *matres lectionis* in Semitic epigraphy, Zevit, 1980. For possible relevance of *matres lectionis* to the Greek vocalic system, Luria, 1967: 139–41.

or /ē/ at the end of words. The Hebrews and Moabites first used *matres* to indicate final vowels in the ninth century. In the eighth and seventh centuries they used *waw* and *yōd* to indicate even medial values: *waw* for long /ō/ and *yōd* for long /ē/.[133] At the same time *ʾalf* could indicate final long /ā/ and *hē* final /ō/. Much later, perhaps under the influence of alphabetic writing, *ḥēt* and *ʿain* (in neo-Punic) are used as *matres*.

Gelb was so impressed by the similarity in function between Semitic *matres* and the Greek vowels that he wondered if the Greek vocalic system came into being as an evolutionary systematization of *plene* writing: "Nothing would surprise me less than the discovery of early Greek inscriptions from the ninth century B.C., which would either not indicate any vowels at all or would indicate them only rarely in the manner of the Semitic *matres lectionis*."[134] No such inscription has ever been found, or in my view will be. Gelb attributed to an impersonal evolutionary process what was the product of a single man's creative intelligence. It is extremely unlikely that the adapter ever saw *matres*. They are never found in surviving examples of the curiously conservative Phoenician writing, the adapter's model.[135]

The hypothesis is also contrary to the evidence suggesting that the adapter was not well acquainted with Phoenician writing – the distortion of letter shapes, the confusion of the sibilants, and *boustrophedon* writing. The use of *matres lectionis* in Semitic languages is, furthermore, different in kind from the adapter's system of vowel notation. Never full or systematic, *matres* had different values in different Semitic writing systems and even within the same system. Thus Semitic *ʾalf*, *hē*, *waw*, and *yōd* may, like Greek, indicate [a], [e], [u], and [i] respectively; but *ʾalf* = [a] appears only in final position and only as a long vowel; *hē* and *waw* can both indicate long [ō], or [e] and [u] respectively; *yōd* can also have the value [e], in addition to [i]; Semitic *ʿain* is never used as a *mater* in this period.

The *matres* are not vowel signs as such, with a specific unvarying phonemic reference, but sporadic indicators of what is already implicit in syllabic writing. Thus they never led to the creation of a true vocalic system in Semitic writing. Vocalization by means of diacritical "points" in Semitic writing seems to appear sometime in the first century A.D. under

[133] In Egyptian hieroglyphic, in the attempt to spell "Kleopatra" phonetically, the sign "lasso" = [w^{x}3^{x}], reduced to = [w^{x}], is used for [o] on the Bankes stone (above, note 125).

[134] Gelb, 1963: 182.

[135] "The evidence for *m.*[*atres*] *l.*[*ectionis*], or rather the lack of evidence, permits the statement that no system for representing vowels in the orthography appears to have developed in Phoenician": Zevit, 1980: 4. Cf. Segert, 1958a and 1958b: 657–9.

the impetus of the Greek and Latin alphabets, without regard to the ancient *matres*.[136]

Present evidence would suggest, therefore, that the similarity between Semitic *matres lectionis* and the Greek vowels depends on objective phonetic similarity – as between the phoneme represented by Semitic *yōd* and by Greek *iōta* – and does not imply a direct borrowing.

Having examined the names and the sounds of all the letters except for the sibilants and for the supplements φ *phei*, χ *khei*, and ψ *psei*, we must next face the puzzle of the sibilants and the exasperating dislocation between names and sounds that characterize these signs when compared with the names and sounds of their Phoenician counterparts.

THE PROBLEM OF THE SIBILANTS

ἐς τὠυτὸ γράμμα, τὸ Δωριέες μὲν σὰν καλέουσι, Ἴωνες δὲ σίγμα.
The same letter the Dorians call "*san*," the Ionians "*sigma*." (Herodotus 1.139)

The problem of the sibilants is created by the existence of too many *s* sounds in Phoenician and too few in Greek. A dislocation has taken place between the shapes and names of the four Greek sibilants and those of the corresponding Phoenician originals. The dislocation was apparently encouraged by the adapter's method of learning separately the names of the signs and the graphic order of the signs, rather than learning individual names for individual signs. We might expect the Phoenician originals of the sibilants to give rise to the Greek names according to the pattern in Fig. 2.[137]

Phoenician				Expected		
shape	name	value		Greek shape	name	value
𐤆	*ʒai*	voiced [s] (i.e. [z])	→	Ι (= ζ)	*san*	[z]
𐤎	*semk*	unvoiced [s]	→	Ξ (= ξ)	*sigma*	[s]
𐤑	*ṣādē*	[ts][a]	→	ϻ (= Μ)	*ʒēta*	[ts], [dz] (or by metathesis [zd])
𐤔	*šin*	[sh][b]	→	Σ (= σ)	*xei*	? [sh]

[a] *ṣādē* is usually said to have had the value of a voiceless affricate [ts], but in Protosemitic it may have been an "emphatic" dental fricative (Moscati, 1980: 33).

[b] Though Garbini (1971: 32–8) has questioned whether the value [sh] belonged to *šin* at so early a date. He thinks that it was simply [s] at this period, while *semk* was [ss].

Fig. 2 The expected derivation of Greek sibilants from Phoenician

[136] Though cf. Gelb, 1963: 186.

[137] For key to diacritical markings, see the explanatory note to Table II.

In fact, although the approximate *shapes* and the original *order* of the signs of the Phoenician sequence are correctly preserved in early Greek abecedaria, the names (and apparently the sound values in the case of Ξ *xei* and Σ *sigma*) have shifted, as shown in Fig. 3.

Phoenician				Actual Greek		
shape	name	value		shape	name	value
𐤆	*ʒai*	voiced [s] (i.e. [z])	→	Ζ	*ʒēta*	[dz], [zd][a]
					NOT *san*	
𐤎	*semk*	unvoiced [s]	→	Ξ	*xei*	[ks], perhaps
					NOT *sigma*	other values
𐤑	*ṣādē*	[ts]	→	ϡ (Ϻ)	*san*	[s]: same value
					NOT *ʒēta*	as *sigma* but appearing where *sigma* does not
𐤔	*šin*	[sh]	→	Σ (σ)	*sigma*	[s]: same as *san*
					NOT *xei*	but appearing where *san* does not (on Melos both *san* and *sigma* appear)

[a] Jeffery gives the value of *ʒēta* as a voiced *s* [z], but it seems not to have acquired this value until the fourth century B.C. See W. S. Allen, 1987: 58.

Fig. 3 The actual derivation of Greek sibilants from Phoenician

Of the many proposed escapes from the quagmire, L. H. Jeffery offers the best.[138] Redistributing the Greek names according to what we expect and what we find, she divides them into two pairs, explaining the actual names of the Greek sibilants as resulting from the switching of the names within each pair, as shown in Fig. 4.

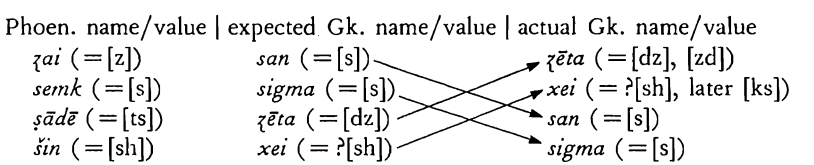


Fig. 4 Jeffery's reconstruction of the shuffle of the sibilants

According to this explanation the sign + value of *san* switched with the sign + value of *ʒēta* while the sign + value of *sigma* switched with the

[138] *LSAG* 25–8. Jeffery tacitly adopts a suggestion first proposed by Taylor, 1883: 97–102.

sign + value of *xei*. Also, because voiced *s* apparently did not exist as a separate phoneme in Greek at this time, the voiced Phoenician *ʒai* became voiceless [s], resulting in a virtual identity of sound between *san* and *sigma*. In the Ionic scripts *sigma* stayed on while *san* dropped out; in the Doric scripts, *sigma* dropped and *san* remained. Because the sound [sh] does not occur in Greek, the adapter was left with a sign that had an unnecessary value. *xei* is certainly not the original name of this sign in Greek; perhaps it was **shein*. We will return in a moment to the situation afflicting *xei*, which on the whole the Greeks preferred to leave alone, frozen in the abecedarium. The Phoenician affricate [ts] (*ṣādē*) became the Greek voiced [dz], soon metathesized to [zd] (*ʒēta*).

The deviation of the name σίγμα from *semk* is not obvious. We would expect something like *σέμκα, and the evolution could have gone *σεμκ > *σεμκα > *σεμγα > *σεγμα > *σιγμα. The unexpected vowel may be contamination from *šin*, if we could be sure what the vowel was really like in Phoenician. A cluster -μκ- is odd for Greek and can be expected to decompose in some way. A metathesis to *σεγμα would be catalyzed by the fairly large class of Greek neuter nouns in -μα. The form of the name may well have received support from the onomatopoeic verb σίζω, "to hiss."

The switchings of name and value here described must have come about in the memorized spoken oral series of names, learned independently of the physically transmitted series of signs. The switchings could not have taken place if the adapter had learned the names and value of each sign independently.

There now remains the problem of the origin, history, and meaning of the three puzzling letters attached to the end of the Greek series after *upsilon*, the aspirated consonants φ *phei* = [ph], χ *khei* = [kh], and the double consonant ψ *psei* = [ps]. This problem, in part tangled up with that of the sibilants, is a great enigma in the story of the transmission of Phoenician writing to Greece.

THE PROBLEM OF THE SUPPLEMENTALS φ χ ψ

No problem connected with the Greek alphabet has occasioned so much speculation and discussion – futilely perhaps, since the very multiplicity of the suggestions indicates the impossibility of any certain solution. (R. Carpenter)[139]

The so-called supplemental letters φ *phei*, χ *khei*, ψ *psei*, which follow *tau* in the conventional series of Greek alphabetic letters, have usually been

[139] Carpenter, 1933: 21.

explained as later additions to the original Greek alphabet, their introduction promoted by the needs of local pronunciation or other exigencies. The conclusion is based on the fact that the Phoenician signary ended with the sign *tau* and therefore offered no models for the supplementals, and on the fact that early inscriptions from the islands of Crete, Thera, Melos, Sikinos, and Anaphe, some of them very old, never used the supplementals. It is in effect an "evolutionary" explanation which assumes that what the earlier alphabet could not do, it could do later, after the supplementals had been added. However, the hypothesis of additional letters coming into the Greek signary at a time after the alphabet's invention was never likely, and I have argued in detail elsewhere against the view.[140] What authority could establish new letters in a signary where they are not really needed and not always used? Even *ōmega*, which did not belong to the earliest Greek signary, is no exception to a rule *nihil novi* after the adapter's invention: *ōmega* is formally *omicron* broken at the bottom and phonetically a variant of *omicron*.[141] A model built on the assumption that the supplementals belonged to the adapter's system better accounts for the use of φ χ ψ in the early epigraphic record than does the usual explanation.

The nature of the problem: shapes, order, values

About the origin of the *shapes* of the supplementals, much discussion has produced no agreement. There are many potential antecedents to a circle bisected by a vertical line (Φ), to a cross (Χ), and to three lines that intersect at a common point (Ψ); the problem is evidently not solvable in present terms.[142] The simple geometrical forms of the supplementals took

[140] See Powell, 1987. Cf. also: Kretschmer, 1896 and 1897; Earle, 1903; Falkner, 1948; Nilsson, 1952; *GrGr* 144–5; *LSAG* 35–7; R. Schmitt, 1977; Heubeck, 1979: 93, who agrees with "Die Vermutung, dass beide Zeichen [i.e. χ, ψ] ebenso wie φ...in die Anfänge griechischen Schreibens gehören...," though Heubeck's reconstruction differs from mine.

[141] As for Ionian *sampi* ϻ, a compound sibilant attested between *c.* 550–450 and later replaced by ξ or σσ, and other such rare signs (see *LSAG* 38–40), they are isolated events, never integral to the Greek alphabet (though *sampi* = 900 is taken into the "Milesian" numeral system, after *ōmega*).

[142] Wilamowitz (1884: 289), who may offer the best of many hypotheses, thought that the shapes of both Φ *phei* and Χ *khei* were taken from ⊕ *thēta*: for *phei*, the horizontal disappears and the vertical breaks the circle top and bottom: ⊕ > Φ; for *khei*, the circle drops: ⊕ > + > Χ. Thus the bilabial aspirate (Φ) and the velar aspirate (Χ) are derived formally from the dental aspirate (⊕). The letter *psei*, however, Wilamowitz could only derive from Υ *upsilon*, suggesting an added vertical stroke: Υ > Ψ Lenormant (1867, 1868) took Χ (or +) *khei* from Ϟ *kappa*: the vertical stroke "|" of Ϟ is bent into a " < " to create Χ *khei*, an aspirated velar from an unaspirated velar. Aspirated bilabial Φ *phei*, for Lenormant as for Wilamowitz, comes from aspirated dental ⊕, while the form of Ψ *psei* remains unexplained. Others discard phonetic affinity between the mother sign and the derived sign and juggle with shapes alone. See Nilsson, 1952: 1029–31. Cf. Gelb, 1963: 144, fig. 78, for an example of "made up" signs.

Table III *Three early abecedaria*

	1.	2.	3.
α	A	A	A
β	B	B	B
γ	⅂	<	⅂
δ	D	D	D
ε	E	E	E
F	ⅎ	F	ⅎ
ζ	I	I	I
η	日	日	[-]
θ	⊗	⊕	[-]
ι	I	I	I
κ	K	K	K
λ	L	L	⅂
μ	M	M	M
ν	N	N	[-]
ξ	田	田	王
ο	O	O	O
π	⅂	⅂	⅂
M	M	M	—
ϙ	Q	Q	Q
ρ	P	P	P
σ	≷	≷	[-]
τ	T	T	T
υ	Y	Y	Y
χ	X	+	ϕ
φ	ϕ	ϕ	+
ψ	Y	Y	Y
ω	—	-	Ω

1. Etruscan, from Marsigliana d'Albegna (right-to-left), *c.* 700 (*LSAG* 236–37, pl. 48 (18)
2. Etruscan, from Formello (left-to-right), *c.* 650–600 (*LSAG* 237, pl. 48 (20)).
3. Samian (right-to-left), *c.* 660 (*Eg* I 265–6, fig. 119).

Table IV *Selected epichoric variation in the rendering of certain sounds*

	"red"	"light blue"	"dark blue"	"green"	"green"	"green"	"dark blue"	"dark blue"
	a	b	c	d	e	f	g	h
	Euboia	Attica	Corinth	Thera	Melos	Crete	Naxos	Ionia
1. k	K:Ϙ	K:Ϙ	K:Ϙ	K:Ϙ	K	K:Ϙ	K:Ϙ	K:Ϙ
2. kh	Ψ	X	X	KΘ:ϘΘ	KH	K	X	+, X
3. ks	X	XS	ǂ	KM	KM	KM:ϘM	ΟS	Ξ
4. ph	Φ	Φ	Φ	ΓΘ	ΓH	Γ	Φ	Φ
5. ps	ΦS	ΦS	Ψ	ΓM	ΓM	ΓM	ΓS	Ψ
6. dz	I	I	I(:Ξ)	Ξ	-	I	-	I
7. s	S	S	M	M	M	M	S	S
8. ē	⋮	⋮	B	Θ:⋮	-	Θ	⋮:Θ	Θ
9. h	Θ	Θ	Θ	Θ	H	-	Θ(:Ο)	-

After Heubeck, 1979: 98, fig. 37.

Table V *Selected epichoric variation in the values assigned to* hēta, xei, qoppa, *and the supplementals*

	"red"	"light blue"	"dark blue"	"green"	"green"	"green"	"dark blue"	"dark blue"
	a	b	c	d	e	f	g	h
	Euboia	Attica	Corinth	Thera	Melos	Crete	Naxos	Ionia
1. Θ	h	h	h	ē, h	-	ē	ē, h	ē
H	-	-	-	-	h	-	-	-
2 Ξ	-	-	ks	dz	-	-	-	ks
3 Φ, Ϙ	k	k	k	k	-	k	k	k
4 ϕ, Φ	ph	ph	ph	-	-	-	ph	ph
5 X, +	ks	kh	kh	-	-	-	kh	kh
6 Ψ, Ψ	kh	-	ps	ks*	ks*	ks*	-	ps

* From the late archaic period only.
After Heubeck, 1979: 92, fig. 35

shape in the mind of their creator by paths we cannot reconstruct historically. He needed three additional signs and he fashioned them from preexisting signs, or he invented them freely.

As for the *order* of the supplementals in the surviving archaic abecedaria, the sequence is χ φ ψ in one group of scripts (the West or "red" scripts[143]; cf. Table III. 3), and φ χ ψ in another group (the East or "blue" scripts; cf. Table III. 1, 2):

"red"	"blue"
χ = [ks]	φ = [ph]
φ = [ph]	χ = [kh]
ψ = [kh]	ψ = [ps]

In formal terms, φ and χ have switched places in their order in the "red" and "blue" abecedaria. There is no good explanation for this minor confusion, which perhaps reflects in some way the major confusion that attaches to the values of the supplementals.[144] Since, as will become clear, I take the values of the "red" scripts to be closer to the adapter's model than those of the "blue," I assume that the "red" order is the adapter's order and that the "blue" order was fashioned by an early transmitter.

The serious problems concerning the supplementals have to do with their *values*: although φ *phei* always = [ph], where it appears, χ and ψ can have different phonetic values in different local scripts. We can see the full extent of the confusion by examining Tables IV and V, which include information on the different ways in which the epichoric varieties expressed the bilabial aspirate [ph]; the velar aspirate [kh]; and [ps], a double consonant consisting of a bilabial plosive [p] + the voiceless alveolar fricative, or sibilant, [s]. So:

[ph] can be expressed by φ *or* by πΗ (*pei* + *hēta*)
[kh] can be expressed by χ *or* by ψ
or by κΗ (*kappa* + *hēta*)
[ps] can be expressed by ψ *or* by φσ/φΜ
(*phei* + *sigma*/*phei* + *san*)
or by πσ/πΜ
(*pei* + *sigma*/*pei* + *san*)

[143] For the meaning of the conventional designations "red" and "blue" scripts, see just below, 53–4.

[144] An Akhaian fifth-century abecedarium from Metapontion has φ ψ χ χ, apparently blue χ (= [kh]) and red χ (= [ks]) together! See *LSAG* 37, 256, 261 no. 19; pl. 50 (19) (*contra*, *EG* I 116–17). For the order of the supplementals in the Metapontion abecedarium, and other later variants in their order, cf. Wachter, 1989: 29–34 (though I cannot agree with Wachter's notion that the supplementals were added after the adapter's version).

We can put this another way:

the sign χ = [ks] or [kh]
the sign ψ = [kh] or [ps] (also ψ = [ks] after the sixth century on Crete, Thera, Melos)
the sign φ = [ph]

φ *phei* always has the same value, while ψ and χ can have the same value ([kh], the aspirated velar), or each its own value as a double consonant one of which is [s]: χ = [ks], ψ = [ps].[145]

How could this perplexing situation have arisen?

"Red," "blue," and "green" scripts

Basing his observations on the difference between the sound values attached to χ *khei* and ψ *psei*, A. Kirchhoff in his influential *Studien zur Geschichte des griechischen Alphabets* of 1863[146] divided the Greek scripts into two main groups, East and West.[147] Kirchhoff also called attention to the absence of the supplementals altogether (including φ *phei*) in the scripts of Crete, Thera, and Melos, which, however, he considered, as he did the scripts of Attica, to constitute a subgroup of the East scripts. The third edition of Kirchhoff's book (1877) included a colored map on which Kirchhoff indicated the distribution of East and West scripts, which he distinguished by criteria of the differing values of the supplementals (see Map IV). The map was shaded two colors of blue – dark and light – and red. Beneath the names of the islands of Melos, Thera, and Crete he drew a green line.[148]

The dark and light blue part of the map, the East scripts, included Ionia, Attica, Corinth and her colonies, Argos, Megara, and the Aegean islands (but not Euboia, which is West). In the "dark blue" scripts,[149] χ has the value [kh] and ψ has the value [ps] and the order of the supplementals in

[145] A lesser difficulty is that after the sixth century, in the restricted area of Crete, Thera, and Melos, ψ has the value [ks] (Table v. 6d,e,f); but this development is too late and too isolated to have clear bearing on the problem of the supplementals' origin.

[146] Kirchhoff: 117–253. There were four editions of this celebrated work; the fourth edition (Gütersloh, 1887) is now reprinted (Amsterdam, 1970).

[147] The distinction between "East" and "West" scripts has nothing to do with the division of Greek dialects into East and West, with which the observed differences in script are in no sense coincident.

[148] My black-and-white version of the central portion of Kirchhoff's colored map (Map IV) omits a blue line drawn beneath Makedonia, Abdera, Maroneia, Byzantion, and each of the Ionian colonies; and a red line drawn beneath Mende.

[149] Kerkyra, Leukas; Argolid, Corinth, Megara; Makedonia, Amorgos, Samothrace, Khios, Samos, Rhodes; Asia Minor, southern Sicily. In fact the situation on Rhodes, where sometimes ψ = [kh], is ambiguous; cf. Johnston, 1975: 154.

the abecedarium is φ χ ψ (Table III.3). The "dark blue" scripts also use ξ *xei* for [ks]. The Greek letter *xei*, apparently derived from Semitic *šin*, is of course itself not a supplemental, but the plethora of Phoenician sibilants against the lack of them in Greek has involved the letter ξ in the problem of the supplementals.

The "light blue" scripts comprised those of Attica, Salamis, Aigina, Thasos, Paros, Naxos, and Keos, which differ from "dark blue" in lacking ψ = [ps] and in lacking ξ = [ks]. For these values "light blue" used ordinarily φσ and χσ.

The "dark blue" values of the supplementals and of *xei* and the "blue" order in the abecedarium (Table III.3) are the same as the fourth-century Koinē script universalized through Athens' preeminent literary prestige after Athens officially accepted "dark blue" over her own "light blue" in 403/2.[150]

(2) The "red" part of Kirchhoff's map, and the West scripts, included Euboia, all of the mainland (except Attica, the Megarid, and the Argolid), Kephallenia, Ithaka, and all the Italian and Sicilian colonies (except some southern Sicilian colonies). In the red scripts ψ = [kh] (rather than "blue" ψ = [ps]) and χ has the value [ks], leaving ξ *xei*, which in "blue" scripts = [ks], with nothing to do.

To sum up:

In East ("blue") scripts φ, χ, ψ = [ph], [kh], [ps]; ξ = [ks] (except for "light blue," which does not use ψ or ξ).
In West ("red") scripts: χ, φ, ψ = [ks], [ph], [kh]; ξ is not used; φσ/πσ = [ps].[151]

There remains the third so-called "green" part of Kirchhoff's map, which comprised the scripts of Crete, Thera, and Melos.[152] Though Kirchhoff included the "green" scripts with East, later commentators customarily spoke of it as a third group[153] and called these scripts the "primitives." In the "primitives" the supplementals are said not to appear at all (except for ψ and then only in the late archaic period, with the odd value [ks]).

[150] Cf. *FGrHist* II.B, note 115, fr. 155.

[151] Later, special signs, evidently built on x, have the value [ps] in "red" scripts: these are ⋔ in Posidonia, Arkadia, Ozolian Lokris, Epizephyrian Lokris, and Megara Hyblaia; and ⧖ in Elis and Lakonia.

[152] Kirchhoff clearly included Melos with the "green" scripts and underlined Melos with green on his map; but he colored it blue to indicate that, under the influence of Ionian scripts, Melos eventually adopted the supplementals (Kirchhoff, 1887: 73).

[153] E.g. Cook–Woodhead, 1959: 175, who mistakenly attribute the threefold division to Kirchhoff.

The supplementals belong to the earliest alphabet; the problem of the primitives

Kirchhoff's scheme, and the descriptive phrases "blue *khei*" for χ = [kh] and "red *khei*" for χ = [ks] will probably never disappear from the literature. They are in fact a correct synchronic description (with minor alterations) of the geographical distribution of the supplementals in their differing phonetic values. But the evolutionary significance generally accorded to this scheme (and intended by Kirchhoff, who thought Theran script to be closest to the original Phoenician) should be rejected. Kirchhoff's view supposed that once upon a time there were no supplementals, a stage represented by the "primitive" scripts of Crete, Melos, and Thera. Then φ, χ, ψ were added, φ having the same value in all the scripts, χ and ψ having differing values in East and West, a view encouraged by the formal similarities between Cretan script and its supposed Phoenician model.[154] ξ was given the value of [ks] in the East scripts.[155]

Because φ χ ψ do not appear in Phoenician, they were certainly added by the Greeks. It would be dangerous to conclude, however, because the supplementals do not appear in extant inscriptions from the Cretan group (Crete, Thera, Melos, Sikinos, Anaphe), that the supplementals were not contained in early Cretan abecedaria, of which no examples survive. Jeffery pointed out that on the same grounds we might conclude that the archaic Cretan abecedarium lacked the letter ξ, also unattested in Cretan inscriptions.[156] Yet not only does ξ possess an unequivocal Phoenician model, it survives epigraphically in the recording of the non-Greek Eteocretan language at Praisos, *c.* 550–525, and perhaps at Lyttos, *c.* 500.[157] On Thera, which must have taken her writing from Crete, ξ also serves as the first sign in the Theran spelling of "Zeus" (Table v.2d), perhaps reflecting some local pronunciation.

Jeffery urged the "psilotic" nature of the Cretan dialect, which "had no aspirate in any case, either initial or medial,"[158] as a satisfactory means of explaining the absence of the supplementals in archaic Cretan inscriptions. Terminology is important here, and in spite of Jeffery's usage "psilosis" ought to mean "the loss of the *spiritus asper*" (the loss of initial /h/), in contrast to "deaspiration of stops." The Ionic dialect undergoes *psilosis* but never *deaspiration*. The East Ionic forms ἀπ' ἑκάστου but κάθοδος are obvious evidence of the presence of word boundaries and

[154] *LSAG* 310. [155] Cf. Buck, 1955: 17. [156] See *LSAG* 35, 310.
[157] *LSAG* 309; Duhoux, 1982: 164–6. [158] *LSAG* 310.

the relative chronology of certain compounds. But what is the evidence for Cretan psilosis? Mainly it is graphic omission. The sign H is early used, but only as a vowel, though the omission of H from the Gortyn Law Code (*ICr* 4.72) and several other legal texts (*ICr* 4.62–5) raises the possibility that such compilations were copied from older texts lacking H because H had primary value as *spiritus asper*.[159] Clear evidence of ordinary psilosis are found in such forms as κατισταμεν and μοιχιοντ' ελεν.[160] The evidence for Cretan deaspiration of stops, on the other hand, is not so clear. When Crete finally adopts the Ionic script, they seem to know where to put the aspirates, though it is hard to tell how much they are borrowing from Koinē. Still, dialectal words like καυχος for χαλκος and αδευφιος for αδελφιος[161] do suggest that the Cretans had preserved aspirates all along but had just not spelled them. And Cretan orthography seems all along to distinguish in the ordinary way between the aspirated and nonaspirated dentals θ and τ, both initial and medial.

A basic difficulty with the epigraphical (and much linguistic) literature on the problem of aspiration in the Cretan dialect is the assumption of a uniform dialect for all of Crete. My own view is that there was considerable variation, both geographical and chronological, that is masked by a uniform alphabet. It must be true, however, that the early Cretan receivers of the alphabet heard the aspirate faintly or not at all, which is why in extant inscriptions (*h*)*ēta* = η.[162] For had the early Cretan receivers clearly heard aspirated stops, but never received the supplementals, surely they would have written [ph] as πH and [kh] as κH (ϙH), as did in fact Melos and Thera, who can only have taken their script from Crete at a time when (*h*)*ēta* could still have the value [h]. As for the Cretan use of θ, curious spellings such as -θθαι for -σσαι or Ασαμβος for Delphian Αθαμβος long ago led to the hypothesis that in Cretan (and in Kyrenaian) [th] > [Þ] or [ts] (with occasional shift to [s] as in Lakonian).[163] The Theran spelling θHαρυμαϙος (below, inscription no. 64) also suggests that θ was not of itself marked for aspiration in the alphabet that Thera took from Crete; or at least that some Therans assumed one had to put in [h], even redundantly, to indicate aspiration.

Theran confusion about the value assigned to (*h*)*ēta* – sometimes [h], sometimes [ē] – probably reflects the stage of development inherited from

[159] A single possible example of H as *spiritus asper* appears in a spelling of Hερακλες from the sixth century B.C.: see Guarducci, 1952–4: 172; Bile, 1988: 76, §21.42. Bile agrees that (*h*)*ēta* = [h] belonged to the earliest Cretan system. (My thanks to John Bennet for the reference, and to Jeffery Wills for advice on Cretan phonography).

[160] Buck, 1955: no. 58a; p. 315, 11.40

[161] Lejeune, 1972: no. 136.

[162] Cf. Buck, 1955: 52–3.

[163] For the argument, see Arena, 1959.

Crete. A related confusion appears in early inscriptions from Crete itself, as from Dreros, where H is used for some inherited long [ē], but not consistently (ημην beside ημεν; οπε, κοσμεν, κοσμησιε[164]). The picture is complex but seems to accord with a thesis that early Cretan receivers did not clearly hear aspiration, initial or medial. In this context the position of the supplementals at the end of the alphabetic series made it easy for them to drop away, while the positions of θ and τ within the series encouraged the continued use of these signs, although to θ in some cases at least was assigned the value of fricative (or affricate). Finally, some epigraphic evidence supports the view that the earliest Cretan abecedarium possessed the supplementals: in Eteocretan inscriptions from the sixth century B.C. φ appears frequently, as when Praisos is written -φραισο- (though local coins from that city, from the fifth century B.C. on, write Πραισός).[165] The sign φ also appears, apparently, in a single Greek inscription found at Itanos *c.* 525 B.C.[166] In sum, we ought not to continue to call the Cretan script "primitive" on the basis of the fact that the script, as so far attested, idiosyncratically lacks φ χ ψ (with the exception of the single inscription from Itanos). The Cretan abecedarium must once have possessed these signs, but lost them before passing on their script to neighboring Thera and Melos.

Other epigraphic evidence supports the view that the supplementals belonged to the earliest alphabet. "Red" ψ = [kh] appears on one of the very oldest examples of Greek writing, a sherd from Lefkandi dated *c.* 750, possibly part of a name Αισψρι = *Aiskhri*[*?on*].[167] "Blue" χ = [kh] appears on the Dipylon oinochoe, *c.* 740, in ορχεστον.[168] φ = [ph] appears on the roughly contemporary Pithekoussan Cup of Nestor in Αφροδιτες.[169]

The very obscurities surrounding the values of the signs ψ and χ is further evidence that these signs belonged to the original system. For we would expect new signs added to a preexisting signary to clarify ambiguity. What is the ambiguity in φσ/πσ = [ps]? Athens and Euboia, the earliest possessors of the alphabet, do write φσ = [ps] (Table IV.5). The signs ψ and χ introduce confusion, not clarity.

[164] Buck, 1955: no. 116.

[165] See Duhoux, 1982: 171–6.

[166] *ICr* 3.7.2; *LSAG* 309; *EG* I 192. Guarducci finds this use so extraordinary that she wonders if the graffito is an import, perhaps from Rhodes; cf. Duhoux, 1982: 172; Bile, 1978: 74, n. 7.

[167] Popham–Sackett–Themelis, 1979–80: 33, pl. 32 (7).

[168] Inscription no. 58, below, 125.

[169] *LSAG* 235; also restored in καλλιστε[φα]νο: *loc. cit.*; *EG* I 226–7. φι is said to appear on a Pithekoussan amphora of *c.* 650–25 (Inscription no. 7, below, 000): Buchner, 1982: 292; Johnston, 1983: 64. The inscription is more likely to be a doodle.

How the values of the supplementals changed in the hands of the adapter's successors

Euboea is the crucial link in the epigraphic chain which, despite considerable gaps, appears to connect central Greece...with the south-eastern Aegean. (L. H. Jeffery)[170]

Once we have put aside the judgment that the scripts of Crete and its outlying islands are more "primitive" than other Greek scripts, we no longer have reason to explain the origin of the supplementals as an "evolutionary" development. We will prefer to construct, in accord with the historical and epigraphic evidence, a model that presents an initial coherence that has broken down according to a rational scheme. Fig. 5 is just such a model.

In the beginning there are no "red," "blue," or "green" scripts, but a single script, the adapter's creation. In refashioning the Phoenician syllabary, in which each sign had the value of a consonant with or without an unspecified vowel, the adapter had first to create a full system of vowel notation, then to overcome the difficulty that the Phoenician signary had too many signs for some sounds and not enough for others. Phoenician had four *s* sounds while Greek had one, voiceless [s]. This fact led to a confusion between *san* and *sigma*, and to so much uncertainty over the value of *xei* that the West "red" scripts left *xei* alone, frozen in the abecedarium. The adapter *might* have divided *kaf* and *qōf* into aspirated and unaspirated voiceless velar plosives, but his failure to do so prevented him from establishing a pair

kappa/qoppa = aspirated velar plosive/unaspirated velar plosive

as a parallel to

thēta/tau = aspirated dental plosive/unaspirated dental plosive

Nonetheless perceiving the usefulness of a full system of aspirated plosives on the model θ *thēta* = [th]/τ *tau* = [t], he created a new sign for the bilabial aspirated plosive, φ *phei* = [ph], and two other aspirated signs to correspond to the unaspirated velars *kappa* and *qoppa*, namely χ = [kh] (corresponding to *kappa*) and ψ = [*ϙh] (corresponding to *qoppa*). The names of these signs, on the model of "*pei*" from the Phoenician name *pē* that he seems to have used for the supplementals, must have been *khei* and

[170] Jeffery, 1982: 827.

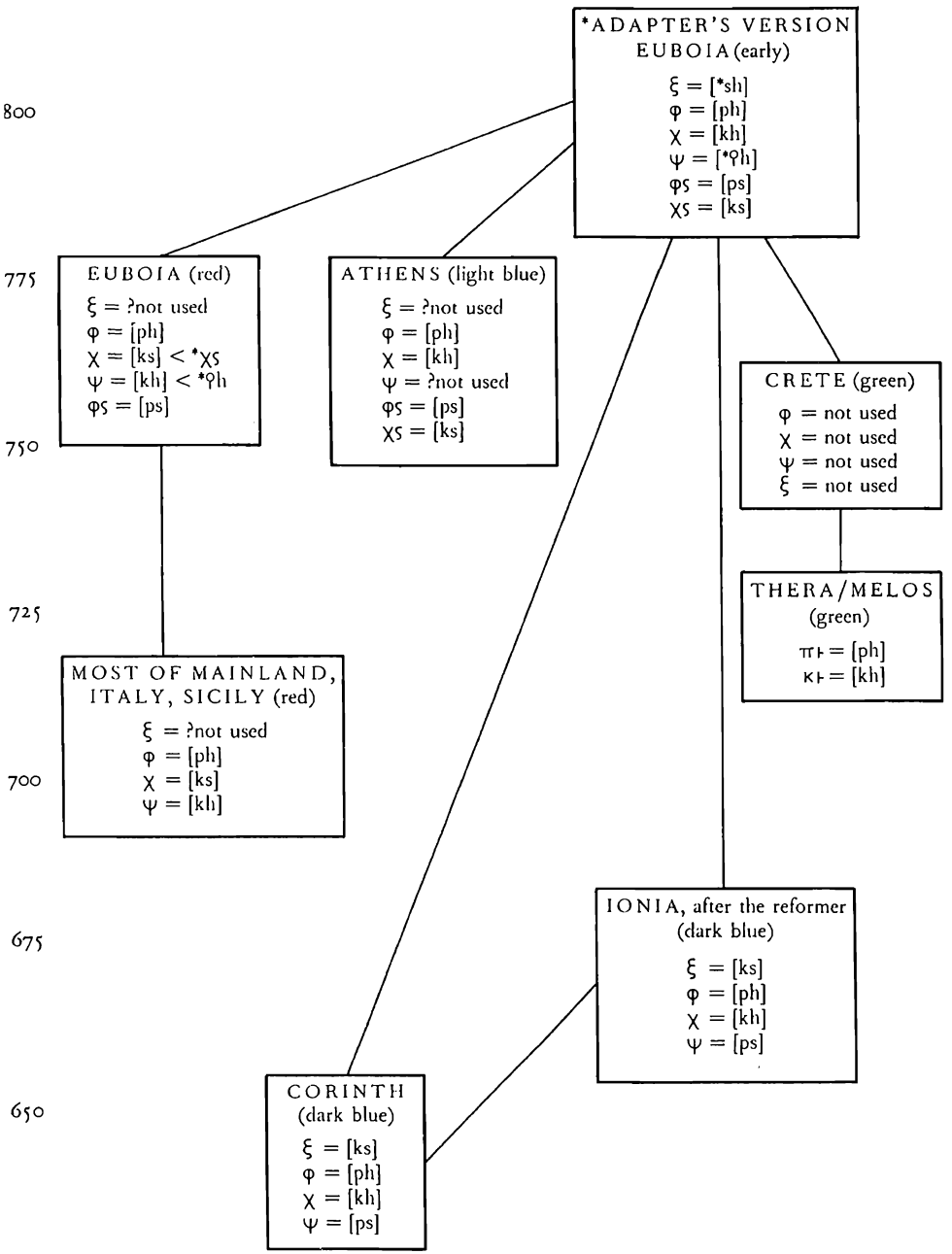


Fig. 5 Historical stemma of φ χ ψ (and ξ)

ϙhei.[171] The similarity in sound between κ *kappa* and ϙ *qoppa* led, however, to the eventual disappearance of *qoppa* while creating a parallel confusion between the letters *khei* and *ϙhei.*

The adapter's writing apparently arrived first among the Euboians, where we find our very earliest examples of alphabetic writing, and in Fig. 5 I place his hypothetical script in Euboia; the adapter may himself have been a Euboian. Athens shared old ties with Eretria (and presumably Lefkandi) on Euboia and has given us some of our earliest writing on the Dipylon oinochoe (*c.* 740) and in the Hymettos sherds (*c.* 700 downward).[172] Euboia, though "red," and Athens, though "light blue," had scripts closely related to each other and to the adapter's system.[173]

When the epigraphic record begins, the fricative ξ = [*sh] was no longer used in Euboia or Athens and lay idle in the abecedarium. ξ had not yet acquired its later "dark blue" value of [ks]. The combination [ks] the adapter must have written χσ, just as he wrote φσ for [ps], to judge from χσ = [ks] in Athens and φσ = [ps] in Euboia and Athens. It is hard to be sure why he wrote χσ and φσ and not κσ and πσ – perhaps he heard an aspirate in the combination.[174]

ψ = [*ϙh] had been displaced in Attica, when the record begins, by χ = [kh], and in Euboia ψ = [*ϙh] > [kh] had replaced χ = [kh], leaving χ with nothing to do. For this reason the Euboians reduced original χσ = [ks] to χ = [ks], a change, together with "red" ψ = [kh] (Table v.5a,6a), that the Euboians passed to the mainland and to their colonists to constitute the "red" West scripts.

In the eighth or early seventh centuries the aggressive and wide-ranging Euboians also passed the alphabet to Ionia, to the south Aegean, to the Argolid, and to Crete, whether directly or through intermediaries. In the process of transmission, changes in letter shape and in usage (especially the preservation of *san* or *sigma*) resulted in the formation of the epichoric varieties.[175] After dropping the supplementals, Crete gave a reduced

[171] For the original velar quality of ψ, cf. Gercke, 1906: 549–7; Hammarström, 1928; *LSAG* 36.

[172] C. W. Blegen began publication of these earliest Attic inscriptions after the Dipylon oinochoe (Blegen, 1934). R. S. Young established their date to, roughly, the seventh century (Young, 1940). M. K. Langdon completed the publication (Langdon, 1976).

[173] Cf. Jeffery, 1982: 830: "the Attic and Euboic scripts agree in certain uses – the ι, sigma ς, and the early long ϛ; but Attic is blue, Euboea red."

[174] A claim perhaps supported by Naxian HΣ = ?[hs], where we would expect to find [ks] (cf. the Nikandre inscription, no. 62, below, 169ff.).

[175] I earlier suggested a stemma that described the generation of the epichoric varieties one out of another (Powell, 1987: fig. 1), but I now think that the confusing epichoric variation of letter shape and usage is better understood as individual variations from a single model, the Euboian (with the qualified exception of Corinthian script: see below).

abecedarium to Melos, Thera, and neighboring small islands. Lacking the supplementals, but conscious of aspiration in their dialect, these islands wrote πΗ for [ph] and κΗ for [kh]. In this way the "green" scripts were defined.

Somewhat later the Greek alphabet felt the hand of its only reformer, an Ionian who used χ for [kh]. Noticing moribund ψ = [*ϙh] and ξ = [*sh], he discarded the digraphs φσ = [ps] and χσ = [ks] by assigning [ps] to ψ and [ks] to ξ on the analogy of ζ *zēta* = [dz] (or [ts], or metathesized forms thereof: Table IV.3c,h). The reformer built, in short, a coherent system of velar, bilabial, and dental plosive + fricative:

[ks] = ξ
[ps] = ψ
[dz] = ζ[176]

Now the "dark blue" script was defined. The "dark blue" reform must have taken place sometime in the seventh century: we do not find ξ = [ks] or ψ = [ps] before *c.* 675, as far as I know.[177]

The reform spread through Ionia and was even taken up by Doric Corinth, who seems earlier to have received her writing from a separate tradition (Corinth uses *san*, Ionia *sigma*). Athens, by contrast, an early possessor, clung to old ways, writing φσ for [ps] and χσ for [ks] (and *(h)ēta* for [h], rather than Ionian *(h)ēta* = [ē]). Nor was the reform received on the Aegean islands, including Crete, Melos, Thera, where [ps] continued to be expressed by φσ/πσ (Table IV.5d-g) and ξ remained an anomaly (Table V.2d,f). ξ = [ks] was never in a position to make an impression on the "red" scripts because ξ already had the "red" value [ks], through reduction from χσ; and ψ was not available for [ps] in the "red" scripts because ψ preserved its original velar value [*ϙh] > [kh].

In this way East and West diverged in the use of two of the three supplementals, whatever other influences they might have traded back and forth. ξ ever after remained a dead sign in the "red" scripts. The work of the Ionian reformer[178] finally triumphed to enter the Koinē script when the "light blue" Athenians in 403/2 accepted the "dark blue" script.

[176] We would need [*bs] and [*gs] to complete the series of plosives + *s*, but these combinations do not appear in Greek.

[177] The earliest instance of ξ = [ks] may be on a Corinthian sherd *c.* 675 (*LSAG* 404, pl. 18 (4)). We must come down to the sixth century to find ψ = [ps] (e.g. *LSAG* pl. 19 (15)).

[178] Did he also make *ōmega*, another Ionian device? If so, the reform must be earlier, because *ōmega* is first attested *c.* 700 in the Cyclades: *EG* I 101.

While Fig. 5 illustrates the historical changes of φ, χ, ψ organized by time and place, Fig. 6 summarizes the phonetic development.

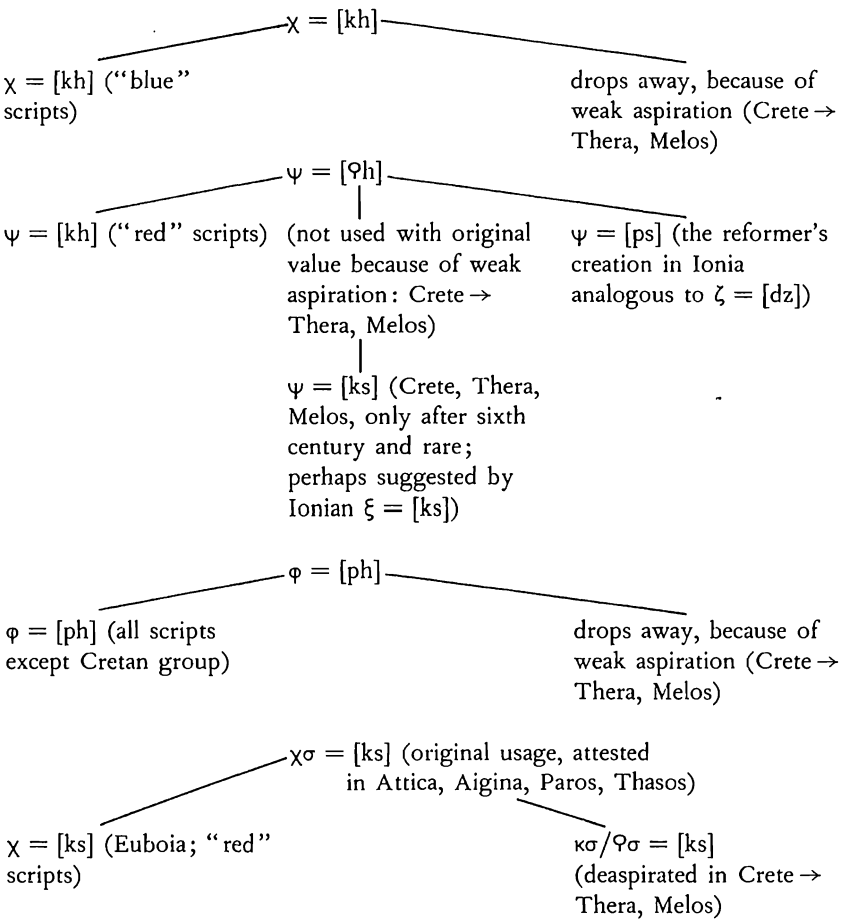

χ = [kh]
χ = [kh] ("blue" scripts)
drops away, because of weak aspiration (Crete → Thera, Melos)
ψ = [ʔh]
ψ = [kh] ("red" scripts)
(not used with original value because of weak aspiration: Crete → Thera, Melos)
ψ = [ps] (the reformer's creation in Ionia analogous to ζ = [dz])
ψ = [ks] (Crete, Thera, Melos, only after sixth century and rare; perhaps suggested by Ionian ξ = [ks])
φ = [ph]
φ = [ph] (all scripts except Cretan group)
drops away, because of weak aspiration (Crete → Thera, Melos)
χσ = [ks] (original usage, attested in Attica, Aigina, Paros, Thasos)
χ = [ks] (Euboia; "red" scripts)
κσ/ʔσ = [ks] (deaspirated in Crete → Thera, Melos)

Fig. 6 The phonetic development of φ χ ψ

Conclusion

The adapter, wanting a complete system of aspirated plosives on the model of θ *thēta* = [th], created from his imagination three new forms, Φ χ Ψ. He called these signs *phei*, *khei*, and **ʔhei*, with the values [ph], [kh], and [*ʔh]. He attached them to the end of the signary. However, the lack of

phonemic difference between χ = [kh] and ψ = [*ϙh], and the uselessness of ξ = [*sh], allowed ψ = [*ϙh] to be displaced by χ = [kh] in the "blue" scripts and χ = [kh] to be displaced by ψ = [*ϙh] > [kh] in the "red." Euboia, mother to "red," reduced original χσ = [ks] to χ, a sign left dormant in Euboia by the ascendancy of ψ = [kh]. On Crete, φ χ ψ dropped away before the script was passed to Thera, Melos, and the outlying islands, which were obliged to write πϝ for [ph] and κϝ for [kh]. In the late sixth century, ψ was introduced in Crete as ψ = [ks] for unknown reasons, perhaps as an analogue to Ionian ξ = [ks]. Corinth first received her script from Euboia, or an unknown intermediary, and later adopted "dark blue" Ionic ψ = [ps] and ξ = [ks].

Change, therefore, has taken place away from a single originally coherent system, the adapter's, to contradictory systems. Then a single system, the Koinē, reemerged in the fourth century. At no time did anyone make serious changes to the adapter's system. That is just what we would expect, considering the rigorous conservatism that characterizes a writing within any culture.

THE ADAPTER'S SYSTEM

The Koinē script of the fourth century B.C. had many differences from the adapter's system, phonological, formal, and orthographic.

Phonologically the adapter's signary possessed ϙ *qoppa* = [q], consonantal ϝ *wau* = [w], interchangeable ϻ *san* and σ *sigma* = [s]. Ͱ (*h*)*ēta* is used as an aspirate = [h], and ψ *ϙhei* (?) is an aspirated velar, perhaps = [*ϙh]. There is no ω *ōmega* = long [ō].

Formally, the adapter's signs have an appearance like those of the abecedaria in Table III, except that *alpha* is probably on its side and *iōta* is a zigzag. The adapter wrote *boustrophedon.*

Orthographically,[179] the adapter's system seems to have ε *epsilon* for Koinē ε, Koinē η (= open long *e*), and for the false diphthong Koinē ει (= close long *e*). ο *omicron* represents Koinē ο, ου, and ω. Metrically elided vowels can be written out, and repeated letters, such as -εε-, can be written singly, -ε-. Doubled consonants, too, are probably written singly, so that -σσ- is -σ-. ϝ *digamma* is used where it is heard (see just below).

We are now in a position to hazard a reconstruction of something that might have come from the adapter's own hand, as long as we remember that impenetrable obscurities surround (1) details of the working of the

[179] For the following, cf. Chantraine, 1968–80: 5–16, and the epigraphic evidence in Chapter 3, below.

writing and (2) details about the exact phonology of the Greek that the adapter was trying to get down.

To the first category belong the orientation of some letters, the distinction between *san* and *sigma*, how ξ **shein* was used, and the precise distinction between ψ and χ.

To the second category, which touches on difficult questions of historical linguistics and dialectology, belongs especially the question of the presence or absence in the spoken language of the semi-vowel represented by *digamma*. Though gradually dropping from the Greek dialects in the historical period, Ϝ *digamma* = /w/ must have been a vital feature in the adapter's perception of Greek phonology; otherwise he would not have needed to invent *upsilon*, but might simply have assigned the value [u] to the Phoenician prototype *wau*. Under what phonetic conditions exactly *digamma* was sounded in the days of the adapter, however, we cannot be sure, though the work of M. Parry, A. Hoekstra, G. P. Edwards, and R. Janko on early hexameter poetry, principally Ionian in dialect, agrees that the semi-vowel represented by the sign *digamma* had ceased to be pronounced in the eighth-century B.C. vernacular of the Ionian dialect; yet it was not until a good while later that the metrical effect of this loss was registered in traditional phrases of the epic diction.[180] In other words, bards of the eighth century B.C. apparently used forms of their own Ionian vernacular as much as possible in their oral song, so long as the meter was not altered; otherwise, they allowed archaic or non-Ionian dialectal forms to persist, especially in formulas and in formular phrases, because of their metrical utility.[181] This will explain why the *digamma* can sometimes be restored in the early hexameter poets, sometimes not. I take it, then, that in the days of the adapter the *digamma* was written, in recording poetry, only in those cases where the sound represented by *digamma* still made metrical position in the verse.[182] Supposing that the adapter was Homer's contemporary, the first ten lines

[180] See now Hainsworth, 1988. Also, Horrocks, 1986.

[181] R. Janko has emphasized to me the importance of this fact in attempting to construct an hypothetical orthography of early hexametric verse.

[182] Yet we must remain agnostic about when *digamma* was really written, when not written, in the days of the adapter. As an illustration of the uncertainty obscuring phonological questions like this, we should remember how traditional wisdom holds that the *asper* in classical ἕνεκα descended from an earlier semi-vowel, the sound represented by *digamma*; yet in Linear B ἕνεκα is written e-ne-ka (Ae303 in Bennett–Olivier, 1973). We are further confused by the probability that the original text of poets like Hesiod and Homer did not always scan; certainly no modern oral poetry scans perfectly as delivered. Editors have adjusted the text to eliminate irregularities.

of the *Iliad* might have appeared, in the adapter's hand, something like Fig. 7 [183]

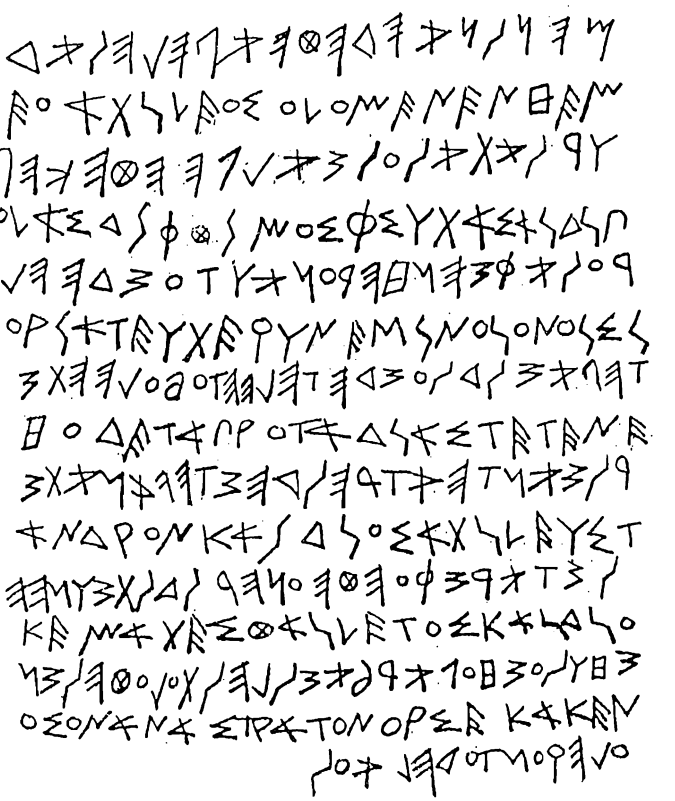


Fig. 7 Hypothetical reconstruction of Homer in the adapter's hand

The vulgate reads:

Μῆνιν ἄειδε, θεά, Πηληιάδεω 'Αχιλῆος
οὐλομένην, ἣ μυρι' 'Αχαιοῖς ἄλγε' ἔθηκε,
πολλὰς δ' ἰφθίμους ψυχὰς "Αιδι προίαψεν
ἡρώων, αὐτοὺς δὲ ἑλώρια τεῦχε κύνεσσιν
οἰωνοῖσί τε πᾶσι, Διὸς δ' ἐτελείετο βουλή,
ἐξ οὗ δὴ τὰ πρῶτα διαστήτην ἐρίσαντε
'Ατρείδης τε ἄναξ ἀνδρῶν καὶ δῖος 'Αχιλλεύς.
Τίς τ' ἄρ σφωε θεῶν ἔριδι ξυνέηκε μάχεσθαι;

[183] Cf. M. L. West's reconstruction of Hesiod's autograph in his edition of *Works and Days*, 1978: 60.

Λητοῦς καὶ Διὸς υἱός· ὁ γὰρ βασιλῆι χολωθεὶς
νοῦσον ἀνὰ στρατὸν ὦρσε κακήν, ὀλέοντο δὲ λαοί.

SUMMARY AND CONCLUSIONS

Die Verschiedenheit der lokalen Alphabete ist weniger das Ergebnis von Sonderentwicklungen als die Kontinuante einer bereits in die Anfänge zu setzenden Situation, in der sich Konsens und Divergenz verschlingen. (A. Heubeck)[184]

The Greek alphabet seems to have originated in a single place at a single time, invented by a single man. No documents of the earliest stage survive. When the epigraphic record begins a little before 750 B.C., the original system has already undergone the changes represented by the epichoric varieties. In these varieties the adapter's version has undergone minor adaptation, external local modification, and historical change, but except for ψ = [ps] and ξ = [ks], the adjustments are not the work of reformers. They issue from characteristics, deficient or confusing, of the original adaptation. We can suggest a stemma to explain the confusions in usage of the supplementals, a complex problem rooted in the phonemic qualities of the Greek language; but the other differences between the epichoric varieties cannot be related to one another entirely on an evolutionary tree. The borrowing of forms among them has been governed by chance. Although our samples are limited, we can see that there is no growth, in the history of Greek alphabetic script, from a system less complex and less well adapted to one more so. No one has added anything important to the original system. The long invisible period once thought necessary to establish the epichoric varieties is better replaced by a short period, during which writing was in the hands of a small group centered on the island of Euboia, its close friends such as Athens, and Euboian outposts. Geographical isolation of these outposts prevented self-correction and uniformity and encouraged diversity of the sort we find when the epigraphic record begins – at most a generation after the invention of the alphabet.

The adapter probably never saw a Phoenician text of any length. He obtained an abecedarium, perhaps written on papyrus or a writing tablet,[185] from a Phoenician informant who showed by example how the

[184] Heubeck, 1979: 99–100.

[185] Such as those found at Nimrud (Galling, 1971); in Etruria, in Marsigliana d'Albegna, along the top of which is written the earliest known complete abecedarium (Table III.1; inscription no. 55, below, 154f.); and now in the Ulu Burun shipwreck (Bass–Pulak, 1986). E. L. Bennett, Jr, who has held the tablet, rumored to be inscribed, writes to me about it (March, 1989): "On the wooden fabric

writing worked. The informant drilled the adapter on the orally memorized series of names that accompanied the series of graphic signs. The informant wrote down Phoenician words and he wrote down Greek words.

Intensive research by scholars into the transition from Phoenician to Greek writing, whence through Rome our own alphabet descends, has taken the form, in general, of examining letter forms, letter names, and the letter values of the exiguous remains of Phoenician writing from the period in which the adaptation might have taken place, then to compare the Phoenician signs with the very few, and obviously not the earliest, surviving remains of the early Greek alphabet. In this way an attempt is made to conclude how, and when, the Phoenician model, undiscovered but reconstructible, may have been altered so as to arrive at the also unknown but inferable form of the first Greek alphabet.

From this research we have learned a great deal. What remains unclear, however, is exactly what led to the adaptation and what sort of change in the structure and function of writing was made when the Greek alphabet was invented. L. H. Jeffery asked four questions about the history of the early Greek alphabet: *where* did transmission take place? *when* did it take place? *how* was the alphabet transmitted through Greece? and *when and whence* do local variations appear?[186] She did not ask *why* was the Greek alphabet created, perhaps because the question seems unanswerable, or because the answer seems obvious: to record the sounds of the Greek language. Yet in the words of I. J. Gelb:

> a simple narrative approach to a subject does not make it into a science. It is not the treatment of the epistemological questions *what?*, *when?*, and *where?* but that of *how?* and above all, *why?* that is of paramount importance in establishing the theoretical background of a science. Disregarding a few notable exceptions in the case of individual systems, such questions have rarely, if ever, been posited and answered in the general field of writing.[187]

It is easy to see, as we look back, how Greek alphabetic writing altered the course of civilization. The adapter was not thinking of that. He faced practical problems and sought practical answers. Let us now press hard upon the question, Why was the Greek alphabet invented?

of the diptych, near the folded edge, there are some marks. Neither I nor Tom [Palaima] recognized the marks as characters in any system of writing known to us. They are not in the best condition in any case. There are very few, and they do appear in a row, more or less, for the rim of the tablet offers only that shape for making marks. In that respect the marks do suggest writing. But until the signs are recognized as the conventional signs of some system of writing, and not simply as occasional symbols, marks of ownership, or even decoration, it would be wiser not to claim that the diptych itself is inscribed."

[186] *LSAG* 1–21. [187] Gelb, 1963: 23.

2

Argument from the history of writing: How writing worked before the Greek alphabet

Although problems of outer form should not be neglected in a treatise on writing, I personally am inclined toward a reconstruction of the history of writing based more on the inner characteristics. (I. J. Gelb)[1]

Being ourselves the users of a writing which structurally *is* the Greek alphabet, we are at a disadvantage working backward in time toward the moment of the alphabet's invention. For we carry an expectation about the way writing is bound to work that makes it hard for us to see what sort of innovation the Greek alphabet was.[2] We will need to turn our attention to the structure of writing systems in general, if we wish to place the invention of the alphabet in context in the history of writing. It will be necessary to assess, however briefly, the history of writing before the Greek alphabet, and to examine in some detail, using a consistent terminology, the actual functioning of early writing systems. Let us choose three specimens of early writing, for the purpose of our analysis: (1) Egyptian hieroglyphics, usually thought to be the oldest ancestor of the Greek alphabet; (2) the Cypriote syllabary, a prealphabetic writing that recorded the Greek language;[3] and (3) Phoenician, the alphabet's immediate predecessor. Important to our inquiry will no longer be shapes, names, and sounds, but how signs were used in combination, their syntax in transforming speech, fact, idea, into a physical record.

[1] Gelb, 1963: 35.

[2] One often hears how Linear B is "ill-suited to the recording of Greek." In fact, it is an advanced writing system, nearly a model among syllabaries with its concise repertory, without logograms and the indicative signs and devices associated with older logo-syllabic writings. Linear B may not do the job that we expect of writing, but it did a far better job of recording Greek than, for example, Egyptian hieroglyphic did of recording Egyptian.

[3] We could use Linear B for this purpose, but the outlines of the Cypriote system are clearer.

ELEMENTS IN THE ART OF WRITING

Let us here consider the casus, my dear little cousis (husstenhasstencaffincoffintussemtossemdamandamnacosaghcusaghhobixhatouxpeswchbechoscashlcarcarcaract) of the Ondt and Gracehoper. (James Joyce)[4]

It is difficult to think about writing because writing is a form of thinking and it is difficult to think about thinking. We may accept as practical E. L. Bennett Jr's definition of writing as "any system of human intercommunication by means of a set of visible marks with a conventional reference."[5] This definition will embrace not only what we usually think of as writing – visual symbols that make a permanent record of human speech, or *lexigraphy* – but will include such other sign systems that communicate information between human beings as musical and mathematical notation – or *semasiography*. In the examples of an algebraic equation or a symphony by Gustav Mahler we can readily see how semasiographic writing makes possible levels of abstract thought and discovery not obtainable without the medium of writing. Lexigraphic writing also makes possible levels of complexity and abstraction unobtainable without writing: the elaborately fine thought of Wittgenstein or the punning semi-private language of James Joyce. To put it simply, we can do all kinds of things with writing that we can not do in any other way. Writing is not "secondary" to other expressions of uniquely human mental processes, especially language (as often held); writing exists in its own right as a form of expression of human thought.

The history of writing

Lexigraphy is probably later historically than semasiography, if we accept D. Schmandt-Besserat's explanation of the meaning of various abstractly shaped clay tokens found abundantly in sites as old as 9000 B.C. from Mesopotamia and Iran.[6] According to Schmandt-Besserat's explanation these tokens represented commodities, such as cloth and livestock. The tokens could be kept on a string or in a container and added to or subtracted from in order to keep record of commodities. Even when, about 3000 B.C., increasing economic complexity in Mesopotamia encouraged a more sophisticated system for record keeping, when we find the first

[4] *Finnegans Wake*, New York, 1959: 414.
[5] Bennett, 1963: 99–100.
[6] See Schmandt-Besserat, 1978, 1980, 1983, 1986.

appearance of true lexigraphic writing, the shapes of the old tokens continued to be used, now impressed on clay with a stylus.

First, then, came the tally by means of tokens, one for each animal or other commodity. Next, the shape of the token was transferred to wet clay, and beside the inscribed shape were placed strokes or other numerical symbols. Later, the lexigraphic principle was discovered, when symbols having conventional *phonetic* values were manipulated to represent the name of this or that man. Such symbols depended on language for their meaning. While there is no necessary correspondence between a conventional sign for, say, a goat followed by four strokes and the words "I have four goats," there is such a correspondence between, say, the picture of a bear followed by a picture of the sun and the name of a man "Bearson." Both examples are "writing," the first semasiographic and the second lexigraphic, but the discovery of the lexigraphic principle utterly transformed the utility of writing by making available to it the monumental resources of spoken language. Lexigraphic writing uses language to serve writing's own ends of information storage and abstract speculation.

In a hypothetical early stage of lexigraphic writing there was one sign for each word (or part of a word, if the part, taken alone, is meaningful, such as "bear" and "sun"). This stage is *logography*, of which we may have historical examples in the pictographic writings found in Uruk and Jemdet Nasr, dated *c.* 3300–2900 B.C.[7] Of course any language has too many words to have a separate sign for each, unless one wants to shoulder the burden of Chinese writing. The need for economy led to one sign standing for several words (as the picture of a heart could stand for the words "heart" or "love"). The ambiguity introduced by such compression was mitigated by appending to a word sign another sign which, by means of its *phonetic* value, clarifies what the word-sign represents (as "1," a word sign, +"st" stands for "first"). Or the appended sign(s) may pictorially or conventionally designate the category wherein the expression is to be taken (as "*B*rown" means "a man of this name," while "*b*rown" means "a muddy color"). We are still in a phase of logographic writing, but ready for the development of logo-syllabic writing: for in employing signs with phonetic reference alone, signs without semantic reference (e.g. *st* in 1*st*), one has discovered the principle of *phonography* – writing in which the signs represent nonsignificant elements of speech. Through phonography it is possible to indicate

[7] Cf. Walker, 1987: 7–11.

graphically any word at all, by indexing the word's phonetic elements. Phonography brings writing into far closer potential relation to spoken language than pure logography ever can.

Logo-syllabic writing, of which historical examples include Sumerian, Akkadian, and Egyptian, is a combination of logographic writing with phonographic elements, but is not a departure in principle from primitive logography. When new words are introduced, such as the word for "chariot" in Eighteenth Dynasty Egypt, it is always possible simply to draw the picture of the thing intended and to allow the phonographic elements to remain subordinate to the logographic, which the phonographic elements clarify. But a radical change took place in the history of writing when signs which represent words, and their various kinds of modifiers, were discarded altogether, replaced by signs that represent by phonetic means alone the syllables of words. This was the invention of *syllabography*.

The syllabic systems included Phoenician, Cypriote, and Linear B. They were much more economical than their logo-syllabic predecessors, having a tenth or less of the number of signs. In the syllabic writings, signs are themselves meaningless and, naturally, individually pronounceable. This great invention happened more than once, and in different ways. The syllabaries made gains in economy through their limited signaries, and gains in expressive power through their ability to draw more freely than logo-syllabic writing on the resources of spoken language; but they incurred corresponding losses in the heightened risk of ambiguity. Without knowing the context of syllabic writing, it can be impossible to know what is meant.

A fourth radical change in the history of writing, after the invention of lexigraphy, logography, and syllabography, took place when many of the signs of the writing ceased to be individually pronounceable, yet when formed in sequential combination were able to indicate with surprising accuracy the sounds of spoken language. This was the invention of *alphabetic writing*, of which the first historical example is the Greek alphabet. The alphabet so intimately associates writing with spoken language that it is hard for alphabetic users, such as ourselves, to see how writing can be anything other than "frozen language," or even to believe that lexigraphic writing and speech are independent means for the expression of thought.

Change in the history of writing is, however, never straightforward. Earlier stages are incorporated into later, with the result that we are able to find in "alphabetic writing" usages identical with those in Sumerian or

Phoenician. Changes in writing can reflect social need, but innovation in writing may also contribute to social change. Change in external form does not reflect change in function. Writings with identical structures exist under the guise of wholly unrelated signaries, as in many forms of cryptography. Similarity of external form does not guarantee similarity of structure. Although early Greek writing looks like Phoenician writing, in fact a fundamental innovation in structure has taken place. It is with the origin and nature of this innovation that we are here concerned.

The terminology and theoretical functioning of lexigraphic writing

Let us now approach the topic of writing, and some of the same material which we have just treated historically, from a descriptive point of view, defining as best we can the elements in the art of writing.

A prominent feature of *lexigraphic writing* is that the order of the written signs, which can represent simple or complex elements of speech, will usually appear in the same order as the elements of speech to which the signs correspond. This principle is basic to lexigraphic writing. It is rarely violated, as when, probably for magical reasons, the signs spelling the name of an Egyptian pharaoh are juggled within a cartouche.[8]

There are two divisions of lexigraphic writing, *logography* and *phonography*.

Logography describes the hypothetical early stage in writing when a sign will represent *a significant element of speech*, ordinarily a word but sometimes more than one word, even a phrase, and sometimes the smallest meaningful part of a word. Familiar examples of logographic writing appear in our own everyday arithmetic signs, where we write $2+3=5$ and say "two plus three equals five." In logographic writing the sign has signification that is apprehensible independently of the phonetic values that the sign represents. Ordinarily when reading a foreign language the reader will not translate logographic signs into words of the foreign language, but apprehend them through his own language. For example, an English speaker reading "1649" in a German text will think "sixteen forty-nine," not "sechszehnhundert neun und vierzig." Herein lies a cardinal feature of logographic writing: if the signs are symbols of identifiable objects, it

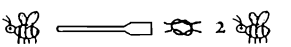
[8] A good example of the confusion which the violation of this lexigraphic rule entails is found in the name of the Twelfth Dynasty pharaoh "Senusret," long read "Usertsen" by Egyptologists until the correspondence with Herodotus' "Sesostris" suggested the signs' correct order. The usage is a sort of atavism, an incorporation into lexigraphic writing of what Gelb calls the "identifying-mnemonic device," a form of semasiography in which visible marks communicate information but not necessarily phonetic information (Gelb, 1963: 191ff.).

is possible to understand what is meant without knowing the underlying language. So Chinese writing, where logography plays a central role, is intelligible to Chinese who speak mutually unintelligible dialects.

Signs appropriate to logographic writing are called *logograms*.[9] The logogram may be simple or complex. A *simple logogram* consists of a single sign; a *complex logogram* consists of several signs used together in a conventional arrangement. There is no good word for a repertory of logographic signs.

In the second division of lexigraphy, *phonography*, the signs represent *nonsignificant elements of speech*. Such elements constitute significant elements of speech only when taken together. The segments of speech represented in phonographic writing may range from a single consonant to a series of syllables. Phonographic signs, or *phonograms*, have phonetic value, but no signification. Phonograms, like logograms, may be either simple or complex: that is, they may consist of a single element or of several elements.

It is possible for the same sign to function as both logogram and phonogram. In rebus writing, the phonographic value of a logogram is retained while the signification of the logogram is discarded. In rebus writing the opening to Hamlet's soliloquy is rendered by



Bennett gives an example of the same signs serving as phonograms and as logograms in "B 4," rebus writing for "before," where the signs are phonograms having value but no signification, and "4 [letter] B's," where the signs are logograms having both phonetic value and signification.[10]

Two divisions of phonography: syllabography and alphabetic writing

The distinction between *syllabography* and *alphabetic writing* lies in the extent of value and the kind of value that the phonogram represents.

In syllabography the signs represent separately utterable but nonsignificant elements of speech. The signs are *syllabograms*, complex or simple. The repertory of syllabograms in any given system is a *syllabary*.

In *alphabetic writing* the signs represent values which may not be separately utterable and which have been discovered through analysis.

[9] The word "ideogram" has so long been carelessly used that it should probably be omitted from the technical vocabulary. An ideogram ought to be "a character or figure symbolizing the idea of a thing, without expressing the name of it," such as -+-, which signifies "add these figures together" and does not necessarily represent the word "plus." See Bennett 1963: 119–122.

[10] Bennett, 1963: 103.

Taken in serial combination, *letters* form syllables and words. In logography we can ascertain some of the meaning without knowing any of the sounds, but in alphabetic writing it is possible to pronounce the writing without any comprehension of what is being said.

The repertory of letters in alphabetic writing, ordinarily learned in a predetermined, arbitrary order, is called an *alphabet*. Letters too may be simple (*f*, *g*) or complex (*qu*, *é*). Although in an ideal alphabet each letter should stand for a single phoneme, historical alphabets have always made compromises, often major, between what is written and what might be spoken. At an early stage in the alphabetic recording of language, there may be a close correspondence between what is said and what is spoken; but historical orthography can quickly establish a large gulf between information recorded in alphabetic writing and the spoken language.

Auxiliary marks, signs, devices

Coordinate with lexigraphy are certain categories of signs and devices.

1. *Prosodic marks and devices (auxiliary to lexigraphy in general)*
The term "prosodic" is of Greek origin, from προσῳδία, apparently referring to a variation of pitch in speaking.[11] Prosodic marks, as here understood, are applied to larger segments of text rather than individual signs. They include any means whereby information may be imparted above and beyond that encoded in the lexigraphic system. Word accents, punctuation of all kinds, word division, capitalization, italics, colored fonts, indentation, and the like belong to this category. Contrary to the general principle of lexigraphic writing, the position of prosodic marks does *not* necessarily correspond to the spoken features which the marks represent.

2. *Indicative signs and devices (auxiliary to logography in general)*
There are three principal types of indicative sign.

(a) A *sign indicator* gives information about the character of the sign with which it is associated. Thus the period after "Engl." indicates that "Engl" is an abbreviation. A sign indicator puts the sign into some recognized category of sign, which in turn helps the reader understand how the accompanying sign(s) are to be taken.

(b) A *phonetic indicator* (or *phonetic complement*) clarifies the pronunciation of a potentially ambiguous logogram (or syllabogram, in

[11] Pl. *Rep.* 399a; Arist. *SE* 166b1,177b3.

logo-syllabic writing) by repeating phonetic information already implicit in the logogram (or syllabogram), such as "*st*" in "1*st*." A phonetic indicator helps to refine phonetic ambiguity (not "one" but "first").

(c) A *semantic indicator* (or *determinative*) gives nonphonetic information about the signification of the logogram. Thus the "$" in "$0.28," to be read "twenty-eight cents," informs us in which context the simple numbers are to be read, that is, in the context of the dollar, information verbalized as "cents." Capitalization is a common form of semantic indicator in modern alphabetic systems, such as "Mr *B*rown painted his house *b*rown."

An important form of semantic indicator comes from historical orthography in a phonographic system where certain spellings are accepted as correct even though they no longer represent contemporary pronunciation of the word. In this way a system of logograms is created within a phonographic system, words whose pronunciation is not revealed by the sequence of phonograms, syllabic or alphabetic, nor by spelling rules, but which must be learned case by case. English is famous for using this device, as in

he br*ough*t a d*ough*y c*ough* pl*ough*ing thr*ough* a r*ough* hicc*ough*

or

th*ough* c*ough*ing and hicc*ough*ing thr*ough*out, he showed that th*ough*t was n*ough*t but a r*ough* sl*ough*[12]

where the seven different sounds for *ough* are learned without regard to standard phonographic values or to conventional spelling rules.

Closely related to indicative signs and devices is the *adjective sign*. While the indicative sign will emphasize information implicit within the logogram, the adjective sign, added to a simple logogram to create a complex logogram, will add new information. In "US$ 0.28" the "US" informs the reader that the monetary unit is not only dollars, but that it is also American dollars.

3. *Diacritic signs and devices* (*auxiliary to phonography*)

Diacritic signs such as accents, umlaut, and the cedilla change the value of the phonographic sign to which they are attached. The attachment of a diacritic mark to a phonographic sign creates a complex phonogram.

Spelling rules, or conventional orthography, are a *diacritic device* that is necessitated by the difficulties that an imperfect writing system imposes on

[12] I owe the second example to D. R. Jordan.

the writer's effort to record elements of human speech; there are never enough signs in any system to represent every desired permutation of speech. Consequently most signs must do double or triple service according to how they appear in combination with other signs. For example, in English *ph* can have the value [f] (though not in u*ph*ill); in French *c* before *u* is [k] but before *e* is [s]; in Italian *gl* before *a* is [gl] but before *i* is [y], while *c* before *i* is [ch] but before *o* is [k]. The set of conventions which describes the range of variation possible for each sign and the values of their combinations constitutes the spelling rules.

Such is a brief sketch of the history of writing, together with a description of the types of lexigraphic writing and the types of signs we can expect to find in lexigraphic writing. Let us now turn to the writing of ancient Egypt, by most accounts the ultimate ancestor of Greek alphabetic writing, to see exactly how this prealphabetic system functioned.

HOW LOGO-SYLLABIC WRITING WORKS: EGYPTIAN HIEROGLYPHIC

Marduk, the wise one among the gods, gave me a broad ear, a perceptive mind... I can solve the most complicated tasks of division and multiplication. I read the artful writing table of Sumer and the dark Akkadian, which is hard to ascertain. (Assurbanipal (669–626 B.C.))[13]

The earliest Egyptian writing appears in the late Predynastic Period, in label-texts on stone and pottery and on votive tablets such as the so-called Narmer and Aha Palettes,[14] and many royal names are found on jar sealings in the ruined mastaba tombs of First and Second Dynasty kings at Saqqara and Abydos. Egyptian writing appears at about the same time as the beginning of Pharaonic civilization, *c.* 3100 B.C., and many would see a direct connection between the two events.[15]

Various special features of Egyptian writing, such as the presence of a sign for "cylinder seal," an accoutrement of Mesopotamian scribes, suggest that Egyptian writing was created by stimulus-diffusion from Mesopotamian logo-syllabic writing, which may precede Egyptian writing by perhaps 300 years.[16] I am here stating common views; chronology of

[13] Quoted in Akurgal, 1968: 49.

[14] Emery, 1961: 2–104. For a historical survey of the conditions of restricted literacy in Egypt throughout its long history, see Baines, 1983.

[15] Cf. Sottas, 1923: 30; Balcz, 1930. Good summary of topic in Ray, 1986; Davies, 1987.

[16] Waddell, 1930; Scharff, 1942. K. Sethe (1939) argued for an indigenous origin of Egyptian writing.

the third and fourth millennia is a controversial subject. Sumerian cuneiform and Egyptian hieroglyphic are similar writing systems, each consisting of hundreds of logograms used in combination with a repertory of syllabograms. Other Mesopotamian cultural artifacts in Egypt – for example, recessed paneling on the façades of archaic mastaba tombs and the Mesopotamian swamp boats on the predynastic Gebel el-Arak knife handle[17] – seem to prove cultural contact between Egypt and Mesopotamia in the late Predynastic and early Dynastic epochs.

Nonetheless, the inventor of Egyptian writing made a momentous change when he rigorously excluded all information about vowels, which are ordinarily indicated in Sumerian cuneiform. The omission of all vocalic information from Egyptian writing was to have a completely unpredictable result in establishing a writing tradition that seems to have culminated in the Greek alphabet.

Herodotus (2.36.4) noted that the Egyptians used two kinds of writing, "one they call sacred [ἱρά], the other demotic [δημοτικά]." Modern studies distinguish three forms of Pharaonic Egyptian writing: hieroglyphic ("sacred writing"), hieratic ("priestly writing") and demotic ("popular writing"). The division first appears *c.* A.D. 200 in Clement of Alexandria (*Stromateis* 5.4.20.3), who divides Egyptian writing into hieroglyphic, hieratic, and "epistolographic." In modern usage Clement's third term is replaced by Herodotus' "demotic."

Clement's division of Egyptian writing is accurate for the period after the seventh century B.C. when demotic, a late cursive form of hieroglyphic incorporating new lexical and syntactic features and employing many ligatures and complex phonograms, had become the ordinary writing outside the temples. In conservative temple practice "hieroglyphic" picture writing continued in use for monuments and magical texts, while "hieratic," a cursive hieroglyphic script nearly as old as hieroglyphic, was used for business accounts and literary exercises. Hieroglyphic, hieratic, and demotic are three outer forms of a single writing that has undergone historical change.

The last example of Egyptian hieroglyphic writing is dated to the reign of Decius (A.D. 249–51);[18] the last example of hieratic script comes from the mummy of a man who received Roman citizenship in A.D. 212;[19] the last demotic text appears on the island of Philae at Assuan, a bastion of Egyptian religious conservatism, from the year A.D. 473.[20] The old Egyptian writing died with the old civilization.

[17] Emery, 1961: 39. [18] Lepsius, 1849–58: IV 90c. [19] See Jensen, 1969: 63.
[20] Jensen, 1969: 65.

Egyptian writing is one of history's earliest and greatest logo-syllabic writing systems, with a total repertory in use at any one time of about 750 signs.[21] In addition to its hundreds of logograms and indicative signs, the writing possesses a full complement of syllabograms conventionally divided into three artificial categories: 24 signs that stand for a single consonant plus an unspecified vowel,[22] the so-called uniliterals, such as the picture of an owl = [$m^{\times}$]; about 80 other signs, the so-called biliterals, that stand for two consonants plus unspecified vowels, such as the "bundle of flax" = [$\underline{d}^{\times}r^{\times}$];[23] and 40 or 50 signs, the so-called triliterals, that stand for three consonants plus unspecified vowels, such as "?sandal strap" = [$ʾ^{\times}n^{\times}\underline{ḥ}^{\times}$].[24] Scholars long ago noted that the Egyptian might have done all his writing by using only the 24 "uniliterals," and simply have abandoned the rest of his signary. In Gardiner's standard grammar the 24 "uniliteral" signs are even isolated from the others and called "alphabetic" signs.[25] But the Egyptian never showed the slightest interest in using this simplification, though it had been implicit in his signary from the beginning. On the contrary, in its life of three and a half millennia, Egyptian writing became ever more complex. In Ptolemaic times it descends into an immensely intricate priestly cryptography, from which come the majority of the total of 6,000 signs attested over the writing's entire history.

Prosodic marks include: the writing of titles and subtitles in red ink, while the text is written in black; the cartouche that surrounds the king's name (a device critical in the decipherment of hieroglyphic writing); and a prosodic function of indicative signs, especially semantic indicators, to divide one word from another. As far as we know, there are no diacritic signs in Egyptian hieroglyphic and hieratic writing (though they appear in demotic). Diacritic signs *may* appear in the Egyptian Dynasties 18–24, *c.* 1573–715 B.C.; we just do not know more about the meaning of the various signs (e.g. "bread loaf") that appear without clear semantic or phonetic value in the writing of this period.

Let us now consider two short examples of Egyptian writing, to see in practice the working of the logo-syllabic writing that served the Egyptian bureaucracy and religion for more than three thousand years.

[21] Standard descriptions in Gardiner, 1915; Erman, 1917; Sethe, 1935; Spuler, 1959. Excellent discussion in Davies, 1987.

[22] Schmitt, 1954. For attempted reconstructions of Egyptian vocalization on the basis of Coptic writing and of Egyptian names in other scripts, see Sethe, 1923.

[23] "$\underline{d}$" = [dj].

[24] "$ʾ$" = glottal stop; "$\underline{ḥ}$" = [kh].

[25] Gardiner, 1957: §19.

An Egyptian word

First a single word, the Egyptian word for the constellation that we call Orion:[26]

(1)	(2)	(3)	(4)	(5)	(6)	(7)
folded cloth	back	vulture	twisted rope	toes	star	god
$s^{\times}$	$s^{\times}{}_{3}{}^{\times 27}$	${}_{3}{}^{\times}$	$\underline{h}^{\times 28}$	$s^{\times}{}_{3}{}^{\times}\underline{h}^{\times}$		
		$= [s^{\times}{}_{3}{}^{\times}\underline{h}^{\times}]$				

When used to write the word for "toes," sign (5) "toes" is a logogram, but used in the word for Orion is a phonogram, a trisyllabic syllabogram, that by itself contains all the phonetic information we ever receive about this word. Apparently the Egyptian word for "toes" contained the same sequence of consonants $[s^{\times}{}_{3}{}^{\times}\underline{h}^{\times}]$ as did the Egyptian word for "Orion." About the vowels in either the word "toes" or the word "Orion" we receive, obviously, no information. In this case, not wanting to be taken to mean "toes," "fingers," "toenails," "feet" or the like – that is, to be taken logographically – the scribe places beside a sequence of phonetic indicators. Though (2) taken by itself could be a logogram with the meaning "a back," as a disyllabic syllabogram it has the value $[s^{\times}{}_{3}{}^{\times}]$ and indicates phonographically that by the sign "toes" the writer definitely has in mind the sequence of consonants $[s_{3}]$. Yet the phonetic indicator "back" is not, in the mind of the scribe, sufficient by itself to remove phonetic ambiguity from "toes" , since the phonetic information in "back" , which might logographically be taken for "spine" or "shoulder" or something else, is itself potentially ambiguous. For this reason the Egyptian appends to "back" its own phonetic indicators, the syllabograms (1) "folded cloth" $= [s^{\times}]$ and (3) "vulture" $= [{}_{3}{}^{\times}]$. Finally, sign (4) "twisted rope" $= [\underline{h}^{\times}]$ acts as phonetic complement to the third consonant $[\underline{h}]$ of the trisyllabic syllabogram "toes" $= [s^{\times}{}_{3}{}^{\times}\underline{h}^{\times}]$.

By means of five signs, therefore, the Egyptian has communicated secure phonetic information about three consonants. Yet we may remain in doubt about what the word means if, say, the Egyptian word for "toes" and "Orion" were in fact homophonous (because the vowels are not indicated,

[26] Example from Callender, 1975: 3.

[27] Egyptian "$_{3}$" = glottal stop is the same sound as Semitic *'alf*.

[28] = "emphatic" (pharyngealized) [h].

we cannot know this). So he adds sign (6) "star" ★ as a semantic indicator, imparting the nonphonetic information that the word belongs to the general category "celestial phenomena." Then, as adjective sign, he adds sign (7) "god" 𓇳, indicating that by "Orion" the writer means the living, effective, and numinous being of which the assembled points of heavenly light are but an outward and formal expression.

From this brief example we can see how there is no systematic relationship between the spelling of a word and its "pronunciation" in Egyptian writing. This makes Egyptian writing appear remarkably repetitive. Why must the scribe tell us three times that the word Orion contains the consonants [s] and [ȝ]? Why does he not omit sign (5) "toes" 𓂻 entirely? He is willing to go to great lengths to dispel ambiguity.

In spite of the scribe's conscientious efforts, we still have no idea what "Orion" sounded like in ancient Egyptian, and when an Egyptologist pronounces this word, he will say something like "sah." No ancient Egyptian could have the slightest idea that by "sah" is meant "Orion." The phonetic elements in this writing are only partial clues to meaning. The sound of the word exists only in the mind of the native speaker. But anybody might guess from sign (6) ★ that here is meant a star.

Lexigraphic ambiguity in Egyptian writing: a connected text of average complexity[29]

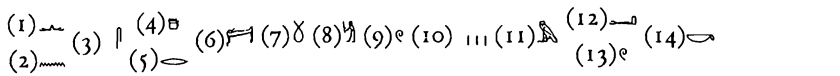
Let us now examine a short connected text, a sentence from the classic Ramesside (or earlier) wisdom text, *The Instruction of Amenemope*.[30] Never seek wealth, advises Amenemope, for man never knows what fate and the gods will bring. Rather, exhorts the sage, be happy with what you have (9.10–15): "If you achieve riches through theft,

[29] For information on Egyptian lexicography in the following discussion, see the sign lists in Gardiner, 1957: 438–543.

[30] British Museum Papyrus 10474 contains the whole document; there are also fragments in the Louvre and Turin. For the Egyptian text, Lange, 1925; transliteration, textual commentary, and general commentary in I. Grumach, 1972; English translation in Lichtheim, 1976: 146–63. Egyptian wisdom, like Biblical Proverbs, Job, and Ecclesiastes, consists of strings of conventional sayings that embody principles of behavior conducive to success in the world of men and in man's relations with the gods. Proverbs 22 and 23 may even go back to the Egyptian *Amenemope*: Proverbs 22.20, refers to the "thirty sayings of admonitions," the number of sayings in Amenemope's classic work. For the parallel tradition of wisdom in Mesopotamia, see Lambert, 1960; in Greece, West, 1978: 3–25, and Walcot, 1966: 80–103. Remarkably, Hesiod repeats in *Erg.* 320–6 the same homily that we are about to discuss from Amenemope (cf. below, 117f.).

they will not stay the night with you (9.16–17)."

To arrive at our English rendering of the Eygptian text is, however, no straightforward matter. Let us trace the steps that a modern Egyptologist might take in order to reach his English version. Here is the same text, with the signs numbered for reference.



First our modern Egyptologist must transcribe the hieroglyphic characters (themselves transliterated from the hieratic script, in which the text is preserved) into Roman characters. Because of the extraordinary ambiguities possible in Egyptian logo-syllabic writing, this can never be a process of simple substitution.

The initial two signs (1) "spread arms" and (2) "water" the Egyptologist will easily recognize, when taken together, as the familiar negative particle and transcribe them as $[n^{\times}n^{\times}]$.[31] We may describe sign (1) "spread arms" as a phonogram, a disyllabic syllabogram, with the phonetic value $[n^{\times}n^{\times}]$, and sign (2) "water" $= [n^{\times}]$ as a syllabogram functioning as phonetic complement. But such a conventional explanation is open to dispute. For sign (1) "spread arms" often appears as a substitute in Egyptian orthography for sign (2) "water" , which certainly has the value $[n^{\times}]$. Either = simple $[n^{\times}]$ is a usage that arises through reduction of the negative particle, so that

 $= [n^{\times}n^{\times}]$

suggests that both and = simple $[n^{\times}]$; or = simple $[n^{\times}]$ is in fact the original phonographic value and the syllabogram $= [n^{\times}]$ is a phonetic complement. If the second alternative is correct, the correct transcription of

will be $[n^{\times}]$ and not $[n^{\times}n^{\times}]$.

In any event, the Egyptologist's phonetic transcription of the consonantal skeleton of the negative particle, being conventional and theoretical, stands at a distance from the actual consonants contained in the

[31] In fact the Egyptologist will write *nn*. The hypothetical presence or absence of vowels whose qualities are unknown obviously has no practical bearing on the making of a translation; in the present study, by contrast, the distinction is a critical one.

ancient Egyptian word. Egyptian writing simply cannot be more precise than this, and it does not need to be. The Egyptian reader knows from *propria lingua* how to pronounce the negative particle, and he knows that the negative particle can be written or or just plain .[32]

Sign (2) "water," which here = [$n^{\times}$], itself has a broad range of potential signification according to context. In the Nineteenth Dynasty it even appears with the syllabic value [$l^{\times}$], having slipped into the liquid, and three "water" signs written one over the other

commonly function as the nonphonetic semantic complement for words designating watery things, such as rivers and lakes, and watery activities, such as drinking and sweating. The same configuration of three signs can also be a complex logogram with the phonetic value [$m^{\times}w^{\times}$], meaning "water," or be used as a disyllabic syllabogram with the value [$m^{\times}w^{\times}$], as in

[32] Whether there is a *syntactic* difference between and is obscure (see Gardiner, 1957: §104). The range of *phonetic* ambiguity in the sign "spread arms" is, in any case, considerably broader than this one example suggests. Consider the (so-called *nisbe*) adjectival form meaning "which not," variously written
 (i$^{\times}w^{\times}$?) ($t^{\times}$) ($y^{\times}$) (sparrow = "paltry")
or
(i$^{\times}w^{\times}$?) ($w^{\times}$) ($t^{\times}$)
Both configurations = [i$^{\times}w^{\times}t^{\times}y^{\times}$]. In both combinations, the sign functions apparently as a disyllabic syllabogram with the value of [i$^{\times}w^{\times}$], though it may be a complex phonogram with the value i$^{\times}w^{\times}t^{\times}y^{\times}$.

When comes as third sign in the group
($\underline{h}^{\times}$) ($m^{\times}$) (= "negation")
= [$\underline{h}^{\times}m^{\times}$], "be ignorant"
the sign serves as a nonphonetic semantic complement. Perhaps from this usage, acquires the syllabic value [$\underline{h}^{\times}m^{\times}$] in the word
 ($\underline{h}^{\times}$) ($\underline{h}^{\times}m^{\times}$?)
($\underline{h}^{\times}m^{\times}$) ($m^{\times}$) (floor plan = "structure") = [$\underline{h}^{\times}m^{\times}$], "shrine"
In origin the "negative" may be used in conjunction with to indicate semantically "one does not enter here." Having acquired the value [$\underline{h}^{\times}m^{\times}$], by metathesis became [$m^{\times}\underline{h}^{\times}$], used as phonetic complement in the word
($s^{\times}$) ($m^{\times}$) ($\underline{h}^{\times}$) ($m^{\times}\underline{h}^{\times}$) = [$s^{\times}m^{\times}\underline{h}^{\times}$], "forget."
So is a protean sign that can serve either as syllabogram with more than one value, or as semantic or phonetic complement.

 ($s^{\times}$)($m^{\times}w^{\times}$) (sun = "the hot season")

= [$s^{\times}m^{\times}w^{\times}$], "summer."

Nonetheless, the Egyptian reader will easily recognize the true phonetic qualities in

because the negative particle is of extremely frequent occurrence in Egyptian writing. Moreover, its position as first word in the sentence predicts its signification. It is just these qualities – frequent appearance and position in a serial order – that would impart clarity to the Egyptian reader, in spite of theoretical ambiguity. The conventional grouping of signs and serial position are important in this semiotic system because they alert the reader to the specific interpretation proper in a range of possible choices.

The second word, signs (3)–(10), is transcribed [$s^{\times}\underline{d}^{\times}r^{\times}.w^{\times}$] and taken with the negative particle to mean "they [i.e. riches] do not last."[33] The verb itself, [$s^{\times}\underline{d}^{\times}r^{\times}$], represented by the six signs (3) through (8), is a formation from

($\underline{d}^{\times}r^{\times}$)
 ($r^{\times}$) = [$\underline{d}^{\times}r^{\times}$], "end" or "long ago"

to which has been affixed sign (3), the affirmative causative prefix with the syllabographic value of = [$s^{\times}$]. The meaning "to last overnight" is even opposite to the expected meaning "to end" so that the scribe is impelled to attach critical semantic documentation to his construction.

The second sign of the word (4) "bundle of flax," is a syllabogram of two syllables with the value [$\underline{d}^{\times}r^{\times}$]. Together (3) "folded cloth" and (4) "bundle of flax" are sufficient to spell this word [$s^{\times}\underline{d}^{\times}r^{\times}$], but to (4) "bundle of flax" is nonetheless added (5) "mouth" as a phonetic complement with the value [$r^{\times}$]. In independent usage, when "mouth" is written with a slash as a sign indicator (meaning "the previous sign designates the thing drawn"), is a logogram meaning "mouth."

Signs (6) , (7) , and (8) are semantic indicators to [$s^{\times}\underline{d}^{\times}r^{\times}$]. Sign

[33] The "." in the transcription signifies that the following syllable will be considered syntactically as a suffix pronoun, in this case [$w^{\times}$], the third person plural pronoun, "they."

(6) 𓊪 "mummy on lion couch" indicates that the word refers to something at rest, lying down – here to the notion of "lasting overnight." Sign (7) 𓎛 "cord" repeats that the word has to do with tying something down, making it permanent, though in other contexts 𓎛 "cord" will complement words that mean "clothes," because of the vegetable substance of the object. And in

𓎛 ($s^{\times}s^{\times}$)
𓋴 ($s^{\times}$) 𓎼 (coiled rope) = [$s^{\times}s^{\times}$], "cord,"

the sign 𓎛 is a logogram. From its logographic usage 𓎛 acquires the phonetic value, as disyllabic phonogram, of [$s^{\times}s^{\times}$], as in

𓎛 ($s^{\times}s^{\times}$)
𓋴 ($s^{\times}$) 𓊃 (block of stone) = [$s^{\times}s^{\times}$], "alabaster."

Sign (8) 𓀀 "man with stick" is a semantic indicator ordinarily associated with verbs of striking. Here it is perhaps an adjective sign taken with the preceding negated causative to refer to the violent means by which ill-gotten gains are acquired.

Sign (9) 𓎼, though identical in appearance to the hieroglyphic sign "coil of rope," is in fact a graphic abbreviation for 𓅱 "chick" taken from hieratic script. Phonetically (9) 𓎼 is a syllabogram with the phonetic value [$w^{\times}$]; grammatically it is a suffix pronoun designating the third person plural "they." The succeeding three strokes (10) 𓏺𓏺𓏺 are a common semantic complement indicating plurality, in this case the plural number of the purely phonetic sign [$w^{\times}$]. This abstract use of the semantic complement designates a grammatical category rather than the fact of plurality.

Sign (11) 𓅓 "owl" is a syllabogram with the phonetic value [$m^{\times}$], the ubiquitous Egyptian preposition, adverb, or conjunction that indicates close relation, whether translated "in," "as," or "when." Sign (12) 𓂝 "forearm" = [$^{c}{}^{\times}$] is by itself a logogram meaning "arm" or "hand," but taken in conjunction with 𓅓 "owl" forms a compound preposition [$m^{\times}{}^{c}{}^{\times}$], literally "in the hand of," "with." But the same combination of signs can have other meanings, depending on context and position. In initial position, 𓅓 𓂝 has the phonetic value of simple [$m^{\times}$] and means "behold"; in this case 𓂝 seems to function as semantic complement, apparently derived from the common imperative form 𓏲 𓅓 𓂝, "give," where, however, 𓂝 is a logogram = [$i^{\times}m^{\times}i^{\times}$]! The combination 𓅓 𓂝 = [$m^{\times}$] can also be the imperative "take" or the interrogative pronoun "who?" or "what?".[34]

[34] At different times in the history of Egyptian writing attempts were made to distinguish graphically the various uses of 𓂝, of which I have given only a sample, by the creation of a

Sign (13) 𓂝, formally the same hieratic sign as (9) 𓂝, seems to have no certain phonetic or indicative value and belongs to that class of unclear signs which began to appear often in Late Egyptian.

The last sign (14) 𓎡 "basket with handle" is phonetically a syllabogram with the value [$k^{\times}$] and syntactically the second person singular suffix pronoun, "you," dependent on the preceding compound preposition [$m^{\times}{}^{\varsigma\times}$].

To sum up, a theoretical phonetic reconstruction of the Egyptian characters (omitting 9 and 13) into Roman characters reading

$n^{\times}n^{\times}\ s^{\times}\underline{d}^{\times}r^{\times}.w^{\times}\ m^{\times}{}^{\varsigma\times}.k^{\times}$

will conventionally be pronounced by a modern Egyptologist as

"nen sejeru em ah ek"

and will be translated literally

"they do not spend the night with you."

Observations

To the reader of a continuous text in a logo-syllabic system of writing, such as ancient Egyptian, the process whereby human intercommunication takes place by means of visible marks with a conventional reference is fundamentally different from that process familiar to ourselves, trained in alphabetic literacy. Only through careful analysis can we attach phonetic values to the fourteen signs of the short sentence described above. The sequence of signs, the interrelations between signs, establishes a system of limitations, a network of phonetic and semantic suggestions, that enables the reader to grasp what the writer intends. The range of potential uncertainty in a single sign is thereby quickly limited by an Egyptian's recognition of familiar arrangements of signs, as well as through repetitions of semantic and phonetic clues among the signs.

Such words in this sentence as the introductory negative particle [$n^{\times}n^{\times}$], the preposition [$m^{\times}$], and the suffix pronouns [$w^{\times}$] and [$k^{\times}$] occur so often in Egyptian writing that the reader never questions their meaning. Their unequivocal phonetic and syntactic qualities serve as syntactic guideposts to the ancient Egyptian reader wandering in the logo-syllabic forest. Let us see how these syntactic signposts work.

compound sign with the sign 𓏏 "bread loaf," conical or rounded, placed in the hand of [illegible] and by other modifications; but the Egyptian scribe never consistently observed the [illegible] especially in hieratic script. Cf. Gardiner, 1957: §227, 234, 336. Gunn [illegible] (12) as 𓂧 "forearm holding conical loaf," even transliterates it as *di*, the value usually [illegible] 𓏏 "conical loaf" (= "give").

The negative particle [$n^{\times}n^{\times}$], first word in the sentence, signifies that "the next sign group syntactically should be predicative"; for [$n^{\times}n^{\times}$] conventionally precedes a predicate. This expectation clarifies the syntactic value of sign (9) "coil of rope," which might otherwise be taken as the common nominal and adjectival plural ending in [$w^{\times}$], from which is formally and by position indistinguishable. But has the right value to be a suffix pronoun, it is in the right place to be a suffix pronoun, and so it must be a suffix pronoun, and not the nominal and adjectival plural ending.

Because the sign (11) "owl," a preposition meaning "in," is one of the commonest words in Egyptian, it too will serve as a signpost in the mind of the ancient Egyptian reader. establishes the expectation that the following word is nominal and so the reader correctly interprets the form [$k^{\times}$] "basket with handle" to be a suffix possessive pronoun meaning "your" rather than a second person singular suffix pronoun attached to a verb, which would have exactly the same form. Semantic indicators are notably absent from these short, common, guidepost words, mostly written in syllabograms of a single syllable. Less common words, on the other hand, will rely more on logograms, on phonograms that represent more than one syllable, and on phonetic and semantic complements.

At first inspection we miss the prosodic marks so useful to our own writing: no capitalization, no word dividers, no accents, and no punctuation. Much prosodic information is, however, imparted, through the arrangement of the signs. The semantic indicators function as word dividers because by convention such indicators come last sequentially in a word. In our example, the group of sign indicators (6) "mummy on a lion couch," (7) "cord," and (8) "man with stick" divide the phonetic information recorded about the verb, written syllabographically, from the syllabogram [$w^{\times}$], which represents the third person plural suffix pronoun.

Although familiarity with the system diminishes the difficulties inherent in Egyptian logo-syllabic writing, we can only be impressed by the distance between the graphic system and the spoken words that, somewhere behind the writing, help to make an intelligible semiotic construction of the graphic system. To us the writing appears clumsy in its inability to communicate the sound of language. The information given is so ambiguous that elaborate checks and balances are required in order that the reader may reach the words in the spoken language which help reveal to him the meaning of the writing. The graphic signs are only partly rooted in the spoken language. Fourteen signs yield information about ten consonants; of course we learn nothing about the vowels. The modern

Egyptologist's spoken "nen sejeru em ah ek" would mean nothing to the ear of an ancient Egyptian.[35]

When a scholar approaches an unknown ancient Egyptian text, he proceeds very differently from an ancient Egyptian. To him the writing is not a straightforward record of information. He learns little from the semantic complements, of high value to the native speaker. Always the scholar searches out the phonetic elements. If he recognizes the phonetic information in an unknown word, he can turn immediately to a lexicon where each sign is organized according to its conventional "alphabetic" phonetic value, much as in a modern dictionary, and there find the meaning of the word. If it is not clear what the phonetic value should be (as is often the case because of the ambiguity of the writing), he must first study a sign list organized according to pictorial class, such as "birds," "parts of the human body," "buildings," "ritual implements and paraphernalia," and the like. In cases where the sign is of ambiguous pictorial design, such as , which might be "pool" or "block of stone," he must look in still another sign list organized according to shape, such as "low and flat," "tall and thin," cross-keyed to the sign list organized according to pictorial class. Having studied a synopsis of the range of phonetic possibilities each sign might have, the scholar can now return to the lexicon organized by conventional alphabetic phonetic transliterations, hoping by trial and error eventually to find the word, though the absence of a consistent orthography will repeatedly place him in a difficult position.

In short, the modern scholar forces Egyptian writing to work as a kind of alphabet, so that he can understand it. This *modus operandi* goes back to the decipherment of hieroglyphic writing, when the ancient superstition that Egyptian writing is a representation of Neoplatonic Forms was decisively overturned.[36] The scholar distrusts reading signs as "ideas" and seeks only the phonetic substratum. His pseudo-alphabetic phonetic reconstruction is a workable system, yet remains to a striking degree hypothetical and arbitrary.

Having made his theoretical phonetic reconstruction, the scholar can

[35] The original Egyptian text of *Amenemope* from which we have taken our sample is unusual for being written stichically, in measured lines that appear to reflect an original metrical scheme. But Egyptian logo-syllabic writing is not designed to inform us about the essential units of metrical composition. With the sound of the verse lost, all we can say of this metrical scheme is that each verse may have contained two or three cola (a colon being a phonetic grouping whose elements are closely bound together grammatically); but some lines in *Amenemope* seem to contain four cola (for the problem of Egyptian metrics, Fecht, 1964). While we might say that the line we have examined has two cola, [$n^{\times}n^{\times}$ $s^{\times}\underline{d}^{\times}r^{\times}.w^{\times}$] and [$m^{\times}$ $d^{\times}i^{\times}.k^{\times}$], the writing preserves no information about rhythm, pitch, ictus, and patterns of vowel alternation – the essential features of metrical expression.

[36] Cf. Iversen, 1961.

now form a theory of what the text might mean. Scholars are frequently uncertain about the meanings of Egyptian texts not so much from ignorance of the language, but because of the system of writing: the signs do not precisely represent the language, even though there are numerous formulaic repetitions to assist comprehension. Reading Egyptian today, one is struck by the insistence with which the scribe will write out again and again, in a narrative, a graphically complex formulaic connective phrase which bears little denotative meaning. The Egyptian scribe is just not free to compose in writing as one might compose in speech. For him, to stray far from convention in expression is to risk unintelligibility. Egyptian writing strikes the modern reader as using a redundancy of signs to express rather slender thought, until one recalls the difficult task faced by a scribe undertaking to record a necessarily fluid language within the constrictions of his logo-syllabic writing. While we detect undoubted instances of oral style, such as the word-for-word repetition of messages in Egyptian prose tales, the primary influence in Egyptian writing remains the intent to simplify human intercommunication by not going beyond certain narrow bounds of expression. Egyptian writing is intelligible because it is highly predictable. Philosophical thought, as familiar to us from the Greek tradition, cannot be expressed in this writing; for philosophical thought requires flexibility and a wide range of expression and, in its written form, the capacity to explore novel thinking in a way that the reader can follow.

To our mind, Egyptian writing has a distant, cool, formal air. Or it is simply wooden. Except through the concrete poetic imagery of the radical Aten hymns of Akhenaten, we never detect that articulation of attitude and intonation that reveals the human personality behind the bare expression. Yet what we might describe as deficiencies in Egyptian logo-syllabic writing did not prevent it from serving the well-being of civilized man for half of his existence. In Egyptian were written religious, economic, legal, historical, poetic, didactic, rhetorical, magical, and medical texts. Egyptian writing is truly one of mankind's greatest cultural achievements. Had not intellectual and military forces overwhelmed Egypt from the outside, no doubt the Egyptians still today would lovingly inscribe the signs that lived in the scriptorium, the "House of Life."[37]

[37] For *pr-ꜥ nḥḥ*, "House of Life," as designating the scriptorium, where books were written, see Gardiner, 1938.

HOW SYLLABIC WRITING WORKS: THE CYPRIOTE SYLLABARY

Dabei ist natürlich das Dilemma für den modernen Leser [of Linear B] bedeutend grösser als für den zeitgenössischen; der letzere ist mit den in den Urkunden erwähnten Personen, Orten, Sachen und Vorgängen vertraut... (A. Heubeck)[38]

In the second millennium B.C. two separate traditions of experiment turned away from the logograms, syllabograms, and phonetic and semantic indicators of Egyptian and Mesopotamian writings to purely syllabic signaries that depended far more on spoken language to communicate thought. One development took place in the Aegean, represented by the deciphered scripts Linear B and Cypriote and, presumably, by undeciphered Cypro-Minoan, Cretan Linear A, and perhaps Cretan pictographic. The other is represented by the large family of West Semitic writings, including Phoenician, that appear all over the Levant in the mid-second millennium. Let us now examine, in our efforts to establish a historical context for the invention of the alphabet, two examples of ancient syllabic writing, the Cypriote syllabary, which recorded Greek, as an exemplar of the Aegean branch of experimental writings, and Phoenician itself, directly antecedent to the alphabet.

The Cypriote syllabary: general description

The existence of an epichoric Cypriote script was first demonstrated in 1852 by the collector and antiquarian, the Duc de Luynes, on the basis of some inscribed coins and a few other inscriptions.[39] The Assyriologist George Smith offered the key to decipherment in 1871, though he remained reluctant, because of the writing's oddity when compared with Greek alphabetic writing, to conclude that the underlying language was Greek. By 1875, through the efforts of philologists in several countries, the decipherment was substantially complete, and the language of most of the inscriptions was proved to be written in what is now called the Arcado-Cypriote dialect of Greek. Many later finds allow one to make the following general description of Cypriote writing.

From *c.* 1600 to 1050 B.C. an undeciphered writing similar in form to the classical Cypriote syllabary was in use on Cyprus and in Ras Shamra in North Syria. Sir Arthur Evans aptly called this script "Cypro-Minoan" by reason of its formal affinities with Linear A and B and with the classical

[38] Heubeck, 1979: 42.

[39] for the following, see *ICS* 30–92. See also Heubeck, 1979: 54–73.

Cypriote writing;[40] the term is now standard. Formal similarities make it probable that Cypro-Minoan is derived from Cretan writing, but their exact relation cannot be determined. Most will agree that Cypro-Minoan records pre-Greek languages spoken on Cyprus.[41]

The oldest dated inscriptions in the classical Cypriote syllabary are from the eighth century B.C., very close to the date of the invention of the alphabet. We are thus left with a troubling hiatus of 300 years between the latest attestation of Cypro-Minoan writing and the first of classical Cypriote writing.[42] Nonetheless the Cypriote syllabary is doubtless an adaptation of the Cypro-Minoan. It is notable that the Cypriote syllabary remained the preferred means of recording Greek on the island of Cyprus, even after alphabetic writing was also known. The two scripts were used side-by-side, until, under foreign rule by the Ptolemies, the syllabary was driven out sometime in the late third century B.C.

About 500 texts written in the Cypriote syllabary are extant. A few record an unknown, non-Greek language usually called Eteocypriote.[43] The wide subject matter of the Greek-language texts, inscribed on a

[40] Evans, 1909: 69–70. Evans seems to coin the term to describe crafted objects, then to apply it to the writing found on some of them.

[41] Recent work allows the division of Cypro-Minoan into three broad categories.

Cypro-Minoan I, with about 85 signs, is by far the most common, with finds from the whole period 1600–1050 B.C. Most inscriptions are short scratchings on clay or on seals. Cypro-Minoan I appears to record an unknown native language of Cyprus.

Cypro-Minoan II, attested on four tablets of some length from Enkomi (*c.* 1200), may record a different language from Cypro-Minoan I, perhaps Hurrian, according to E. Masson (1974 and 1975). Cypro-Minoan II could represent an outsider's adaptation of a local script, analogous to the Greeks' adaptation of Cretan Linear A. Cypro-Minoan II would then reflect a Hurrian occupation of parts of Cyprus in the late Bronze Age.

Cypro-Minoan III is represented only by finds from North Syria, *c.* 1400–1200 (texts in O. Masson, 1957: 25, nos. 320–56) and appears to be a local mainland modification of Cypro-Minoan I, perhaps by Cypriote emigrants.

[42] A recent find, a bronze spit seemingly inscribed with the Greek name O–PE–LE–TA–U and dated to the end of the eleventh century B.C. (Karageorghis, 1980: 134–6), is claimed to narrow somewhat this lacuna, but there is some reason for doubt about the archaeological context. I. Nikolaou, of the Cyprus Museum, is in favor of a date considerably lower (personal communication). There are also epigraphic reasons to doubt the early date. E. L. Bennett, Jr, writes to me about this inscription (1989): "The few characters of the inscription include one or two with forms recognizably specific to the Paphian signary, of a very much later date. One of these is the sign the commentator transcribes as *le*. You will notice that some transcribe this as *re*. The sign itself is perhaps ambiguous (as preserved) and might be recognized as either *le* or *re* in the Paphian script. Those who wish to emphasize their attachment to a theory of development of Classical Cypriote from Linear B are likely to transcribe as *o–pe–re–ta–u*, which by Linear B spelling rules might suggest Opheltas (though it would rather more likely suggest Ophletas). But by Classical Cypriote rules, *o–pe–le–ta–u* will properly represent Opheltas... This object presents extremely interesting problems, which should first be resolved by a genuine consensus before relying on it as evidence in other problems."

[43] *ICS* 86–7, 202.

Fig. 8 Drawing of the first side of the Idalion tablet (after Masson, *ICS*, pl. 34)

diversity of objects, includes sepulchral, votive, and honorary topics. There are even four hexameters (below, 111ff.). We can identify two principal varieties of the Cypriote syllabary; one was confined to the southwest of the island in the area of Old and New Paphos, Rantidi, and Kition (so-called *syllabaire paphien*); the other, formally somewhat different, was used over the rest of the island. The Paphian texts are written from right to left, the others from left to right.

Cypriote writing is a pure syllabary, without logograms (except for numerals) and associated indicative signs and devices. Five signs stand for the pure vowels [a], [e], [i], [o], [u] (just as in Linear B). About fifty other signs represent open syllables, consisting of a consonant plus one of the five vowels (see Table VI). No distinction is made between voiced, aspirated, and unvoiced stops so that, for example, πα, φα, βα are all represented by the same sign, as are τα, θα, δα[44] and κα, χα, γα.[45] There seem to be special signs for [xa] and [xe]. Because the syllabograms stand for open syllables and Greek contains many consonant clusters and final closed syllables, complicated rules govern the working of Cypriote in the spelling of Greek (the same is true of Linear B).

Let us now examine a sentence from the celebrated bronze tablet from Idalion (Fig. 8), one of the earliest Cypriote inscriptions found, and still the longest. The tablet, now in the Cabinet des Médailles in the Bibliothèque Nationale in Paris, was acquired in 1850 by the Duc de Luynes. It had been suspended from an attached ring in the temple of Athena at Idalion to record an agreement between a certain King Stasikypros, probably the last king of the city of Idalion, and a physician by the name of Onasilos, concerning the treatment of the wounded after a siege of Idalion by the Medes and the people of Kition. The inscription informs us that the king and the city will reimburse the physicians for their labors with money and land. The document evidently reflects the military campaigns against Idalion just before Idalion was absorbed into the kingdom of Kition *c.* 470; O. Masson dates it to 478–70 B.C. Fig. 9 gives the Cypriote text with interlinear transliteration into Roman characters.[46] The original reads from right to left, but for convenience I have rewritten the text to read from left to right; numerals in parentheses indicate line numbers in the original text.

[44] Just as in Linear B, except that Linear B distinguishes between /d/ and /t/: Ventris–Chadwick, 1973: 44, no. 4. [45] Except that a sign for [ga] does appear at some sites.
[46] See *ICS* 235–44.

Table VI Theoretical reconstruction of the signary of the Cypriote syllabary (Koinē version)

	A	E	I	O	U
Y					
W					
R					
L					
M					
N					
P					
T					
K					
S					
Z					
X					

Source: *ICS*, 58, fig. 1.

The text can be translated:

When the Medes and the people of Kition besieged the city of Idalion, in the year of Philokypros, son of Onasagoras, King Stasikypros and the people of Idalion invited the physician Onasilos, son of Onasikypros, and his brothers to take care of the men wounded in the battle, without recompense [i.e., from the wounded themselves].

Though the text is Greek, it will not be easy for the Hellenist trained in alphabetic writing to see, on first examination, what this passage might

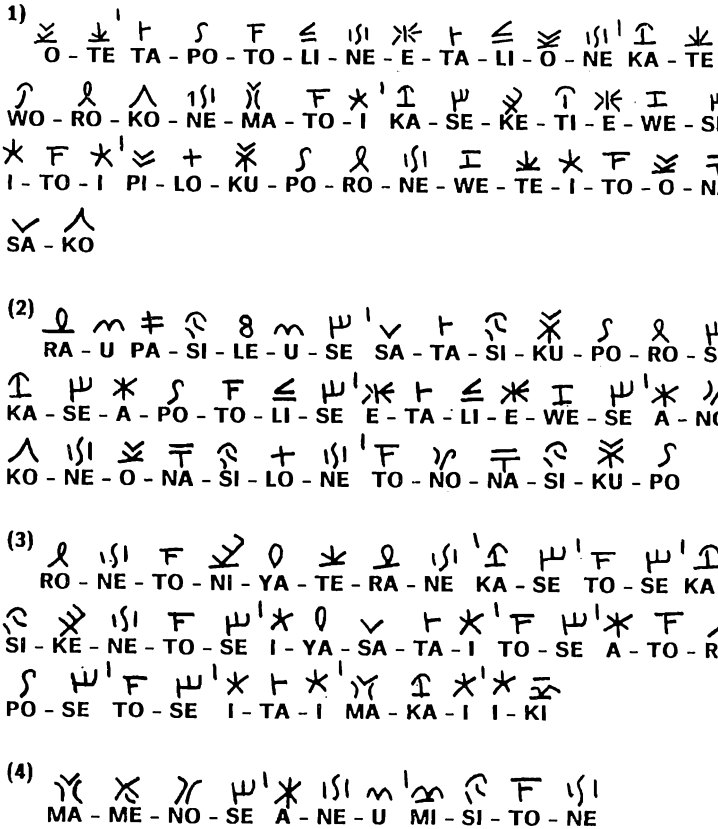

1)
O - TE TA - PO - TO - LI - NE - E - TA - LI - O - NE KA - TE -
WO - RO - KO - NE - MA - TO - I KA - SE - KE - TI - E - WE - SE
I - TO - I PI - LO - KU - PO - RO - NE - WE - TE - I - TO - O - NA -
SA - KO
(2)
RA - U PA - SI - LE - U - SE SA - TA - SI - KU - PO - RO - SE
KA - SE - A - PO - TO - LI - SE E - TA - LI - E - WE - SE A - NO -
KO - NE - O - NA - SI - LO - NE TO - NO - NA - SI - KU - PO
(3)
RO - NE - TO - NI - YA - TE - RA - NE KA - SE TO - SE KA -
SI - KE - NE - TO - SE I - YA - SA - TA - I TO - SE A - TO - RO -
PO - SE TO - SE I - TA - I MA - KA - I I - KI
(4)
MA - ME - NO - SE A - NE - U MI - SI - TO - NE

Fig. 9 The first sentence of the Idalion inscription rearranged to read from left to right, with interlinear transliteration

mean. Here is how the text would look in Greek alphabetic Koinē script, with annotation to explain local dialectal features:

"Οτε τὰ(ν) πτόλιν[47] 'Εδάλιον[48] κατέϝοργον[49] Μᾶδοι κὰς[50] κετιῆϝες[51] ἰ(ν)[52] τῶι Φιλοκύπρων[53] ϝέτει τῶ[54] 'Ονασαγόραυ,[55] βασιλεὺς Στασίκυπρος κὰς ἀ πτόλις 'Εδαλιῆϝες[56] ἄνωγον[57] 'Ονασίλον τὸν 'Ονασικύπρων[58] τὸν ἰγατῆραν[59] κὰς τὸς

[47] Cypriote dialect for Attic πόλιν.
[48] 'Εδάλιον or 'Ηδάλιον must be a local form for expected 'Ιδάλιον.
[49] Probably aorist from *καταϝέργω: cf. κατείργω. [50] κάς = Attic καί.
[51] κετιῆϝες < Κέτιον for Κίτιον. [52] = Attic ἐν. [53] Φιλοκύπρου. [54] τοῦ.
[55] 'Ονασαγόρου. [56] Cf. ἀ πόλις οἱ Γορτύνιοι in *DGE* 184, lines 1–2.
[57] Pluperfect in -ον. [58] 'Ονασικύπρου.
[59] For the form of this and of ἰγᾶσθαι, see below, annotation no. 11.

κασιγνήτος[60] ἰγᾶσθαι τὸς ἀ(ν)θρώπος τὸς ἰ(ν) τᾶι μάχαι ἰκ(?)μαμένος[61] ἄνευ μισθῶν.

Spelling rules (a diacritic device auxiliary to phonographic writing) make possible the reader's recognition of the Greek language behind the syllabic signs. A comparison of the same passage written in Cypriote and in alphabetic writing sheds light on the changes brought by the invention of the alphabet. In Fig. 10 I repeat the transcription of the Cypriote into Roman capital characters (more convenient for my present purpose than the usual lower case), but now append notes to the superscripted numbers. In the commentary that follows I will point out how the different writings functioned in recording Greek, emphasizing especially the spelling rules of Cypriote writing, although this text does not give an example of every rule. I have numbered each line for convenience of reference (bold numbers in brackets refer to line numbers on the original tablet).

Annotation to Fig. 10

1 The script does not distinguish between aspirated and unaspirated vowels. O–TE (line 1) stands for "Οτε (§39.1[62]) and A stands for ἁ (line 7).

2 Ordinarily words are separated by a prosodic mark–a word-divider like the vertical line here, or a dot or a space elsewhere (§33; but see annotation no. 6 below). Because, however, the definite article is usually treated as a proclitic attached to the following word, no word-divider will separate TA from PO–TO–LI–NE = τὰ(ν) πτόλιν (line 1) (cf. §34.3).

3 Nasals placed before a consonant within a word are not represented. In accordance with the principle that the proclitic is considered part of the word it depends on, τὰν πτόλιν is written TA–PO–TO–LI–NE, not TA–NE–PO–TO–LI–NE (§40) (line 1). Also:

I–TO–I, not I–NE–TO–I, represents ἰν τῶι (line 4)
A–TO–RO–PO–SE, not A–NA–TO–RO–PO–SE, represents ἀνθρώπος (line 14)
I–TA–I, not I–NE–TA–I, represents ἰν τᾶι (line 15)

[60] = τοὺς κασιγνήτους.

[61] *Hapax legomenon*, hence the orthography is uncertain; perhaps from *ἰκμάω or *ἴγμαμι or *ἴχμαμι.

[62] All paragraph references are to O. Masson's section on usage: *ICS* 68–78.

1. [1] O[1] – TE |[2] TA[3] – [2] PO[4] – TO – LI – NE[5] – [6] E – T[7] A
Ὅτε τὰ(ν) πτόλιν Ἐδά–

2. LI – O – NE[5] | KA – TE – WO – RO – K[7]O – NE[5] –
λιον κατέϝεργον

3. MA[8] – T[7]O – I[9] | KA–SE[5] – KE – TI – E[6] –
Μᾶδοι κὰς κετιῆ

4. WE – SE[5] | I[3] – TO[8] – I | P[7] I – LO – KU – PO[4] –
ϝες i(ν) τῶι Φιλοκύπ –

5. RO[8] – NE[5] –[6] WE – TE – I[9]–[6]TO[8]O – NA – SA – K[7]O
ρων ϝέτει τῶ Ὀνασαγό–

6. [2] RA – U[9] | P[7]A – SI – LE – U[9] – SE[5]– |SA[4] –
ραυ, βασιλεὺς Σ–

7. TA – SI – KU – PO[4] – RO – SE[5] | KA – SE[5] – A[1] –
τασίκυπρος κὰς ά

8. PO[4] – TO – LI – SE[5] |E – T[7] A – LI – E[8] – WE –
πτόλις Ἐδαλιῆϝε–

9. SE[5] |A – NO[8] – K[7]O – NE[5] – [6] O – NA – SI – LO –
ς . ἄνωγον Ὀνασίλο–

10. NE[5] |TO – N[10]O – NA – SI – KU – PO[4]
ν τὸν Ὀνασικύπ–

11. [3] RO[8] – NE[5] –[6]TO – N[10] I – Y[11]A – TE[8] – RA – NE[5] |
ρων τὸν ἰyατῆραν

12. KA – SE[5] |TO – SE[5] |KA – SI – K[7]E – NE[8] –
κὰς τὸς κασιγνή–

13. TO – SE[5] |I – Y[11]A[8] – SA[12] – T[7]A – I |TO –
τος ἰyᾶσθαι τὸ–

14. SE[5] |A[3] – T[7] O[4] – RO[4] – PO – SE[5] |TO – |[2]
ς ἀ(ν)θρώπος τὸ–

15. SE[5] I[3] – TA[4] – I | | MA – K[7]A – I[9] | I – KI[12] |
ς i(ν) τᾶι μάχαι ἰκ(?)–

16. [4] MA – ME – NO – SE[5] | A – NE – U[9] | MI –
μαμένος ἄνευ μι–

17. SI[12] – T[7] O[8] – NE[5] |
σθῶν

Fig. 10 Cypriote and alphabetic writing compared

4 Consonant clusters are a special problem for a syllabary like Cypriote, because each sign always carries a vowel with its consonant. In writing the πτ of πτόλιν, the rule is applied that in consonant clusters of two consonants in initial position the first sign will take the same vowel as the second sign (§41): PO–TO–LI–NE = πτόλιν (line 1). Also:

PO–TO–LI–SE = πτόλις (line 8)
SA–TA–SI–KU–PO–RO–SE = Στασίκυπρος (lines 6–7)

A similar rule applies when a consonant cluster occurs within a word and constitutes part of a single syllable (42.2). Thus:

PI–LO–KU–PO–RO–NE = Φιλοκύπρων (line 4)
SA–TA–SI–KU–PO–RO–SE = Στασίκυπρος (line 7)
TO–NO–NA–SI–KU–PO–RO–NE = τὸν 'Ονασικύπρων (line 11)
A–TO–RO–PO–SE = ἄ(ν)θρωπος (line 14)

5 Final consonants are always rendered by the "e" series of syllabic signs, i.e. the appropriate consonant plus the vowel *e* (§39.3). Thus the sign for NE renders final [n] of πτόλιν (line 1), 'Εδάλιον (line 2), κατέϝεργον (line 2), Φιλοκύπρων (line 5), ἄνωγον (line 9), 'Ονασίλον (line 10), τὸν (line 10), ἰγατῆραν (line 11), and μισθῶν (line 17).
SE by the same principle stands for final [s] in κὰς (lines 3, 12), κετιῆϝες (line 4), βασιλεὺς (line 6), Στασίκυπρος (line 7), πτόλις (line 8), 'Εδαλιῆϝες (line 9), τὸς (line 12), κασιγνῆτος (line 13), ἀ(ν)θρώπος (line 14), and ἰκμαμένος (line 16).

The appearance of signs in the "e" series in final position without word-dividers seems to show that in position before another word beginning with a vowel final NE or SE are regarded as virtual consonants; except in the case of diphthongs, or when an internal letter such as [s] or [ϝ] has dropped out, two or more vowels do not appear together in the Cypriote syllabary (§35.2–4).

6 Observe that the prosodic use of word-dividers is not consistent. For some reason they are particularly apt to be omitted in the first lines of a text between words in close association, as here between PO–TO–LI–NE (πτόλις) and E–TA–LI–O–NE ('Εδάλιον) (line 1); between PI–LO–KU–PO–RO–NE (Φιλοκύπρων), WE–TE–I (ϝέτει), and TO–O–NA–SA–KO–RA–U (τῶ 'Ονασαγόραυ) (lines 4–5); and between TO–NO–NA–SI–KU–PO–RO–NE (τὸν 'Ονασικύπρων) and TO–NI–YA–TE–RA–NE (τὸν ἰγατῆραν) (lines 10–11). Word division is also readily omitted between a subject and its predicate, as here between KA–TE–WO–RO–KO–NE

(κατέϝοργον) and MA–TO–I (Μᾶδοι) (lines 2–3); and between A–NO–KO–NE (ἄνωγον) and O–NA–SI–LO–NE ('Ονασίλον) (line 9).

7 As I already noted, the Cypriote syllabary makes no distinction between voiced, unvoiced, and aspirated plosives. Thus for alphabetic 'Εδάλιον the conventional Roman transcription reads E–TA–LI–O–NE (lines 1–2).

In this one sentence, for the dental series of plosive we also find:

MA–TO–I representing Μᾶδοι (line 3)
I–YA–SA–TA–I representing ἰγᾶσθαι (line 13)
A–TO–RO–PO–SE representing ἀ(ν)θρώπος (line 14)
E–TA–LI–E–WE–SE representing 'Εδαλιῆϝες (line 8)
MI–SI–TO–NE representing μισθῶν (line 17)

For the labial series of plosives:

PI–LO–KU–PO–RO–NE representing Φιλοκύπρων (line 4)
PA–SI–LE–U–SE representing βασιλεὺς (line 6)

For the velar series of plosives:

KA–TE–WO–RO–KO–NE for κατέϝοργον (line 2)
O–NA–SA–KO–RA–U for 'Ονασαγόραν (line 5)
A–NO–KO–NE for ἄνωγον (line 9)
KA–SI–KE–NE–TO–SE for κασιγνήτος (line 12)
MA–KA–I represents μάχαι (line 15)

8 No distinction is made between the representation of long and short vowels (§35.1). Thus, for example, MA–DO–I expresses Μᾶδοι (line 3), KE–TI–E–WE–SE stands for κετιῆϝες (line 3), and so forth.

9 Diphthongs are rendered by a syllabic sign of consonant plus vowel plus a pure vowel, such as MA–TO–I for Μᾶδοι (line 3), WE–TE–I for ϝέτει (line 5), etc.

10 When a proclitic ending in -ν precedes an initial vowel, the [n] is rendered in continuous writing as if the proclitic and the word it precedes are a single word (§34.3; cf. 3 above).

Thus:

TO–NO–NA–SI–KU–PO–RO–NE = τὸν 'Ονασίκυπρων (line 10)

and not *TO–NE–O–NA–SI–KU–PO–RO–NE, as one would expect in two separate words; cf. paragraph 3, above)

TO–NI–YA–TE–RA–NE = τὸν ἰγατῆραν

11 In the Cypriote dialect a *y* developed in the interior of words as a transitional sound between an [i] and a following vowel. This sound is represented in the syllabary by a special set of signs (§36). Thus:

TO–NI–YA–TE–RA–NE for τὸν ἰγατῆραν (line 11)
I–YA–SA–TA–I for ἰγᾶσθαι (line 13)

12 When, in an internal consonant cluster, the consonants belong to separate syllables (not as in annotation no. 4), then the first consonant is rendered by the sign that has the vowel belonging to the preceding syllable (§42.4). Thus:

I–YA–SA–TA–I = ἰγᾶσθαι (line 13)

(But in this case the rule is disguised because the syllable that follows SA – namely TA – has the same vowel as the syllable that precedes SA – namely YA).

MI–SI–TO–NE (not *MI–SO–TO–NE) for μισθῶν (line 17)
I–KI–MA–ME–NO–SE (not *I–KA–MA–ME–NO–SE) for ἰκ(?)αμένος (lines 15–16).

Observations

Although the Cypriote syllabary may at first appear ill-suited to the recording of Greek, it is in fact surprisingly well designed to impart phonetic information about the underlying language once one has mastered the spelling rules. Lacking the apparatus of logograms, sign indicators, phonetic and semantic complements, and adjective signs of the ancient logo-syllabic writings, and therefore different in kind from its Egyptian or Akkadian antecedents, the Cypriote syllabary is a purely phonetic writing of admirable simplicity and clarity, a high achievement in the history of writing:

1. The "word" is isolated as a linguistic category and sometimes separated from other words by a word-divider. Awareness of the "word" as a linguistic category is also revealed by the arbitrary adoption of a single series of signs, those that end in [e], to stand for consonants that end a word. Proclitics, on the other hand, not considered to be "words," are recorded in continuous writing which observes the same rules that govern internal syllables: when proclitics end in [n], the [n] is omitted before a consonant but preserved before a vowel.

2. The adoption of strict rules for vowels associated with signs that occur in consonant clusters, rules that distinguish between consonants that

belong to the same syllable and consonants that belong to different syllables, proves that the practitioners of Cypriote writing had solved the problem of defining a syllable. Such recurring patterns as PO–RO for προ- become virtual complex syllabograms.

3. Cypriote's special series in [y], a phonographic distinction not made even by the Greek alphabet, is a sophisticated development.

4. The diphthong, so characteristic of Greek vocalization, is recorded with accuracy.

In sum, the Cypriote syllabary is scarcely less able than the Greek alphabet to render the phonology of the Greek language. The aspiration of vowels is not indicated; but neither was it in the Ionic epichoric alphabet. Word separation is inconsistent; but in early Greek alphabetic writing word separation is extremely rare. Nasals before consonants are phonologically very weak; their omission in Cypriote writing is a reasonable economy. The difficult problem of consonant clusters is elegantly lessened by the rules for vowel selection. The rule whereby the *-e* series is always used for final consonants makes them, in this special usage, virtual alphabetic signs. The distinction between voiced, unvoiced, and aspirated plosives is conspicuous in Greek alphabetic writing; but by omitting this distinction the Cypriote syllabary reduces the size of its repertory without seriously compromising intelligibility. Like Cypriote, alphabetic writing did not, at first, distinguish between long and short vowels and never acquired a complete system to distinguish long from short. Once a reader of Cypriote writing has mastered the spelling rules, he easily sees, knowing the context, that PO–TO–LI–NE = πτόλιν, E–TA–LI–O–NE = 'Εδάλιον, KA–TE–WO–RO–KO–NE = κατέϝοργον, MA–TO–I = Μᾶδοι, and O–NA–SA–KO–RA–U = 'Ονασαγόραυ.

In spite of the sophistication of Cypriote writing as phonography, we cannot deny that serious discrepancies exist between what a Cypriote wrote and the sounds that he pronounced as a native speaker. We would not, in truth, be able to reconstruct the spelling rules here described unless Greek had survived recorded in the alphabet. We cannot tell from the writing alone whether SA–TA–SI–KU–PO–RO–SE is to be understood *stasikupros*, *santasikupros*, *santasikuporos*, or *stasikuporos*. A–TO–RO–PO–SE might without context be ἄνθρωπος, "man," ἄτροπος, "unalterable," or ἄτροφος, "undernourished."

Furthermore, the use of Roman characters to transliterate Cypriote signs misleads us about the way the writing functioned, implying a theoretical structure of the syllabary that we cannot be sure existed in the

mind of the ancient practitioner.[63] Our transcription is entirely conventional. To say that the sign + = PA is only a manner of speaking when Cypriote does not distinguish between voiced, unvoiced, and aspirated plosives. Although Cypriote writing reduces all information to phonetic information, we do not read Cypriote directly, but refracted through the prism of Greek alphabetic writing, in the same way that we read Egyptian and other prealphabetic logo-syllabic writings. From our examination of the Cypriote syllabary we see that it is not only a coherent system of vowel notation that distinguishes Greek alphabetic writing from its predecessors – Cypriote has such a vocal system – but that it is the way the system functions as a whole that distinguishes alphabetic writing from its predecessors.

While latecomers to literacy were conducting interesting experiments along these lines in the Aegean, at about the same time another tradition of experiment continued in the Levant. There the Semites had invented (or adopted from unknown sources) an extraordinary syllabary, perhaps based on Egyptian writing, that reduced the numbers of signs even more than the Aegean tradition. The Semites accomplished this reduction by confining the phonetic information imparted in their writing entirely to the consonantal end of the spectrum of phonemic expression.

HOW SYLLABIC WRITING WORKS: PHOENICIAN

This is just doodling... But what the hell is this f–r–n–t–r?... it looks as if it has smoke coming off of it, Paul... Wait a minute! There was a furniture store on Tyler that burned about a year ago. Hell, are we getting too carried away on this thing? It's so mixed up you can invent about anything you want. (John D. MacDonald)[64]

The Landing on Garett Bay. J&S Adams. Betwn Ellisn Bay & Gills Rck. 3 cttgs. 2 eff. Seclded shorlne. Clr TV. Kitch. Chrtr Fishng. NO pets. $289–470 wk. Apr. thru Oct. Write: PO Box 59. Call 845–1847 Apr–May–Sept.–Oct. Box 903 Winona MN 56983. 517–152–5396. (Advertisement in "Door County Welcome, 1986 Guide to the Midwest's Most Famous Vacationland")

[63] Cf. *ICS* §29.1.

[64] *The Drowner* (London, 1963): 119–20, where the hero discovers the critical clue through the convention of the blotter doodle.

The finds

Scraps and chance finds from the second millennium B.C. prove that many experiments in the art of writing took place in the territory extending from northern Syria to the Sinai; yet the extreme paucity and poor condition of most finds make it difficult to draw conclusions, except that writing was widespread here.[65] In Byblos was found a so-called pseudo-hieroglyphic writing tentatively dated to *c.* 2100–1700 B.C., a syllabary unrelated to later Phoenician writing.[66] From the Sinai desert come the Protosinaitic inscriptions from *c.* 1600–1500 B.C. These famous inscriptions are in a pictographic writing, perhaps modified from Egyptian and perhaps recording a Semitic tongue. In many sites scattered throughout Palestine are found the so-called Protopalestinian writings. All specimens are short, fragmentary, and undeciphered, of unknown relationship to one another and to Protosinaitic. Difficult to date, the Protopalestinian writings may span the years *c.* 1700–1100 B.C.

By far the most important of early West Semitic scripts comes from the collection of tablets found at Ras Shamra, ancient Ugarit. The writing records two languages, one akin to Phoenician and Hebrew, the other Hurrian, a non-Indo-European language of unknown affinities widely spoken in northern Syria in the mid-second millenium. Ugaritic writing, dated *c.* 1400 B.C., consists of thirty signs and is cuneiform in design, though formally unrelated to Mesopotamian cuneiform.

From the twelfth and eleventh centuries, in several places in Phoenicia and Palestine, we find the earliest graffiti in the writing that is directly antecedent to the Greek alphabet, inscribed on arrowheads and perhaps used in divination; they are short, consisting only of names.[67] I have already mentioned the discovery of a twelfth-century abecedarium from Palestine (above, p. 9, note 11). From Byblos, the overseas depot of the Egyptian pharaohs and center for export of papyrus to the Aegean (which gives its name to the Greek word for papyrus, βύβλος), comes the earliest Phoenician inscription of substance, preserved on the sarcophagus of a certain King Ahiram; there is also an inscription on the wall of Ahiram's tomb. At first dated *c.* 1300 B.C., the tomb is now usually dated *c.* 1000 B.C.[68] Later inscriptions in what we call the Phoenician script

[65] For the following cf. Driver, 1976: 90–4; Gelb, 1963: 122–53; Garbini, 1966; Cross, 1967 and 1975. Good reviews of the finds in Millard, 1976; Naveh, 1982; Puech, 1986. For a summary of the topic: Millard, 1986.

[66] Cf. Dhorme, 1946–8. For a recent attempt at decipherment, Mendenhall, 1985.

[67] Cf. Milik–Cross, 1954; Iwry, 1961; Bordreuil, 1982.

[68] Initial publication in Dussaud, 1924. For the dating to 1000 B.C., Dunand, 1945: postscriptum; Porada, 1973; Röllig, 1982.

include the celebrated Moabite stone of King Mesha (*c.* 850 B.C.), discovered in 1868 near ancient Dibon, capital of the Moabites, in what is now Jordan. Though the language is supposedly "Moabite," the variety of Semitic spoken east of the Dead Sea, the script is Phoenician. From this date on we find a steady trickle of inscriptions down to about the first century after Christ. They are never numerous or long: Donner and Röllig's standard compilation includes sixty Phoenician inscriptions for the entire range of the existence of the writing, none longer than 22 lines.[69] The inscriptions are mostly personal dedications and dedications of buildings, hard to connect with known historical people and events. As noted earlier, the Ugaritic signs were organized in roughly the same order as the later 22 signs of the Phoenician repertory and had roughly the same values. The tradition of writing in which Phoenician writing appears is, therefore, at least as old as *c.* 1400 B.C., roughly the time of Akhenaten.

We are already familiar with the formal and phonological features of the Phoenician signary from our examination of the changes made by its Greek adapter. The writing was of a simple, elegant design, really a comprehensive phonological inventory of the Semitic consonantal system.

A sample Phoenician text with exegesis

Fig. 11 gives an example of continuous writing in Phoenician, the first three lines taken from the "Yehomilk inscription" discovered in Byblos in 1869 in the courtyard of the sanctuary of the Lady of Byblos and assigned to the sixth–fourth centuries B.C. The inscription is surmounted by the relief carving of a king in Persian garb offering sacrifice to the Lady of Byblos, who sits on a throne. The sun disk spreads protecting wings over the scene. I have rewritten the text (Fig. 11) so as to read left to right and provided an interlinear translation.[70]

	(1)	(2)	(3)	(4)	(5)
1.	ʾ^{x}n^{x}k^{x}	y^{x}ḥ^{x}w^{x}m^{x}l^{x}k^{x}	m^{x}l^{x}k^{x}	g^{x}b^{x}l^{x}	b^{x}n^{x}
	I (am)	Yḥwmlk,	king of	Byblos,	son
	(6)	(7)	(8)		(9)
	y^{x}ḥ^{x}[r^{x}]b^{x}ʿ^{x}l^{x}	b^{x}n^{x}b^{x}n^{x}	ʾ^{x}[r^{x}]m^{x}l^{x}k^{x}		m^{x}l^{x}k^{x}
	of Yḥrbʿl,	grandson	of ʾrmlk		king

[69] DR nos. 1–60. We will expand this number considerably if we include the Punic inscriptions, DR nos. 61–173.

[70] For facsimile, *CIS*, 3. Hebrew transliteration and grammatical commentary in DR no. 10. See also, Gibson, 1982: 17ff., for text, commentary, and an attempt to reconstruct some of the vocalization.

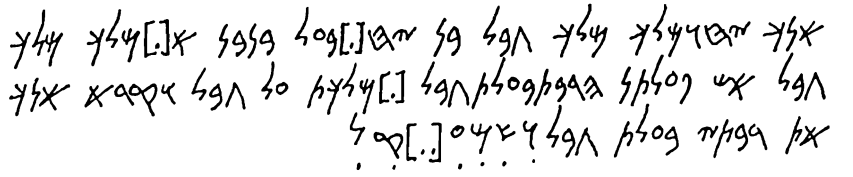


Fig. 11 From the Yehomilk inscription (sixth–fourth century B.C.); after *CIS*, 3 (= DR, no. 10)

	(10)	(11)	(12)	(13)	(14)
2.	$g^{x}b^{x}l^{x}$	$\text{ʾ}^{x}š^{x}$	$p^{x}\text{ʿ}^{x}l^{x}t^{x}n^{x}$	$h^{x}r^{x}b^{x}t^{x}$	$b^{x}\text{ʿ}^{x}l^{x}t^{x}$
	of Byblos,	whom	she made, the mistress		"Queen
	(15)	(16)	(17)	(18)	(19)
	$g^{x}b^{x}l^{x}$	$[m^{x}]m^{x}l^{x}k^{x}t^{x}$	$\text{ʿ}^{x}l^{x}$	$g^{x}b^{x}l^{x}$	$w^{x}q^{x}r^{x}\text{ʾ}^{x}$
	of Byblos,"	king	over	Byblos.	And called
	(20)				
	$\text{ʾ}^{x}n^{x}k^{x}$				
	I				
	(21)	(22)	(23)	(24)	(25)
3.	$\text{ʾ}^{x}t^{x}$	$r^{x}b^{x}t^{x}y^{x}$	$b^{x}\text{ʿ}^{x}l^{x}t^{x}$	$g^{x}b^{x}l^{x}$	$w^{x}š^{x}ṃ^{x}\text{ʿ}^{x}$
	to	my mistress	"Queen of Byblos,"		and she heard
	(26)				
	$[..]q^{x}l^{x}$				
	(my call).				

(1) $\text{ʾ}^{x}n^{x}k^{x}$ is the first person singular pronoun, juxtaposed to (2) $y^{x}ḥ^{x}w^{x}m^{x}l^{x}k^{x}$ in a nominal construction: "I (am) Yḥwmlk"; the name means "may the god Melek give life." (3) $m^{x}l^{x}k^{x}$ = "king" stands in apposition to Yḥwmlk while $g^{x}b^{x}l^{x}$ (4) = "Byblos" is a direct genitive with $m^{x}l^{x}k^{x}$: "king of Byblos." The fifth word (5) $b^{x}n^{x}$ = "son," also in apposition to Yḥwmlk, goes with the name (6) $y^{x}ḥ^{x}r^{x}b^{x}\text{ʿ}^{x}l^{x}$ "son of Yḥrbʿl." (7) $b^{x}n^{x}b^{x}n^{x}$, a reduplication of $b^{x}n^{x}$, = "son of the son" or "grandson," is a third appositive to Yḥwmlk with its own direct genitive (8) $\text{ʾ}^{x}r^{x}m^{x}l^{x}k^{x}$: "grandson of ʾrmlk." (9) and (10), the repeated phrase "king of Byblos," stand in apposition to (8) *ʾrmlk*.

The uninflected relative pronoun (11) $\text{ʾ}^{x}š^{x}$ "whom" is direct object of (12) $p^{x}\text{ʿ}^{x}l^{x}t^{x}n^{x}$, main verb of the relative clause. $p^{x}\text{ʿ}^{x}l^{x}t^{x}n^{x}$ means literally "she made me": the n^{x} attached to $p^{x}\text{ʿ}^{x}l^{x}t^{x}$ is a resumptive pronoun, picking up the relative (11) $\text{ʾ}^{x}š^{x}$ "whom." (13) $ḥ^{x}r^{x}b^{x}t^{x}$ (14) $b^{x}\text{ʿ}^{x}l^{x}t^{x}$ (15) $g^{x}b^{x}l^{x}$ = "the mistress, Queen of Byblos" are the subject of $p^{x}\text{ʿ}^{x}l^{x}t^{x}n^{x}$. (16) $m^{x}m^{x}l^{x}k^{x}t^{x}$, from the same root as $m^{x}l^{x}k^{x}$, "king" ordinarily means "kingdom," but here must mean "king," a predicate

object in apposition to (11) $^{x}s^{x}$ = "whom." w^{x} of (19) $w^{x}q^{x}r^{x}{}^{x}$ is the common conjunctive prefix "and"; $q^{x}r^{x}{}^{x}$ = "called" is a curious grammatical form found only at the beginning of a sentence: it is always followed by the first person singular pronoun, here (20) $^{x}n^{x}k^{x}$.

(21) $^{x}t^{x}$ = "to" marks the direct object (22) $r^{x}b^{x}t^{x}y^{x}$ = "my mistress": y^{x} is first person singular suffix pronoun. (23) $b^{x}{}^{x}l^{x}t^{x}$ (24) $g^{x}b^{x}l^{x}$ = "Queen of Byblos" is appositive to "my mistress." (25) $w^{x}s^{x}m^{x}{}^{x}$ = "and she heard" is a third person feminine perfective verbal form with appended conjunctive prefix. The letters in the lacuna were no doubt $^{x}t^{x}$, the accusative marker with (26) [..]$q^{x}l^{x}$ = "call," direct object of (25) $w^{x}s^{x}m^{x}{}^{x}$ = "and she heard." One would expect a possessive pronoun "my" to be attached to "call," but the pronoun seems to have been purely vocalic in form in the nominative and accusative cases, hence not attested by the signary.

Observations

Even if one does not know Phoenician (or any Semitic language), it is not difficult to follow the text with the assistance of a translation. The absence of vowels makes the language look like an "isolating" language such as English, where grammatical relations are established by word position. The appearance could be an illusion, for the spoken vowels of the Phoenician language may have expressed morphological change; at least Semitic Akkadian, written in vocalized cuneiform, was certainly inflected. The Phoenician language looks in transliteration like the ancient Egyptian language, and from the point of view of the phonetic information that is provided Phoenician *is* like Egyptian, though we have to travel a far shorter distance from the graphic signs to reach our transliteration.

Phoenician differed from other syllabaries of the ancient world in the extreme brevity of its repertory – 22–30 signs against approximately 55 for Cypriote and 80 for Linear B. It also differed, as far as we know, in utilizing a predetermined order of signs for mnemonic purposes by naming each sign independently of the sign's value. In its brevity, and in the naming system whereby it was taught, lies the secret of the success of this writing, still used today from Morocco to Malaysia in the structurally identical Arabic "alphabet," not to mention the many other writing systems descended from it: Devanagari, Avestan, Sogdian, Georgian, Manichean, Mandean, Syriac, Hebrew, Palmyrene, Ethiopic, and of course the Greek alphabet and its descendants.

The Phoenician syllabary was not great, however, because it was well-

fitted to record, by graphic means, the sounds of speech. Aegean, and even Mesopotamian cuneiform, did a far better job. Yet Phoenician served well the need of a Semitic speaker to remind himself of words whose phonology he already knew. Phoenician writing differs from Cypriote in lacking the complicated spelling rules whereby the Cypriote syllabary achieved remarkable precision in the rendering of the sounds of Greek. For its simplicity Phoenician writing paid a high price. Any theory of the actual sound of the above text must be based upon complicated comparative material; the writing itself does not inform us of the sound of words. Compromise between spoken language and written signs is inevitable in any phonetic writing, but Phoenician writing achieved that compromise by exaggerating the writing's precision about consonants, while entirely ignoring any information about the vowels.

SUMMARY AND CONCLUSIONS

Conditions for change in writing systems

But though I beat you with every kind of stick, you do not listen. If I knew another way of doing it, I would do it for you, that you might listen. You are a person fit for writing, though you have not yet known a woman. (Nebmare-nakht, royal scribe and chief overseer of the cattle of Amen-Re, King of Gods, to his apprentice, the scribe Wenemdiamun, *c.* 1100 B.C.[71])

The letter *Tau* advanced in front and pleaded: May it please Thee, O Lord of the world, to place me first in the creation of the world, seeing that I am the concluding letter of *EMeTH* (Truth) which is engraved upon Thy seal, and seeing that Thou art called by this very name of *EMeTH*, and to create with me the world. The Holy One, blessed be He, said to her: Thou art worthy and deserving, but it is not proper that I begin with thee the creation of the world, since... thou formest the conclusion of *MaWeTH* (death). Hence thou art not meet to initiate the creation of the world. (Moses de León)[72]

I spell my names anyhow, to show what rot the systems are. (T. E. Lawrence)[73]

The creation of logo-syllabic writing in the fourth and third millennia B.C. was a cultural achievement of such power as to favor the control of its creators over other societies. But the Mesopotamian cuneiform and Egyptian hieroglyphic writings were difficult to learn. Their use remained

[71] From Papyrus Lansing, P. British Museum 9994, translated by Lichtheim, 1976: 169.
[72] From *The Zohar* (Sperling–Simon, 1958: 9).
[73] From *Seven Pillars of Wisdom*, 1935: 25.

the preserve of a small scribal class. Reformation of these awkward writings was not possible from within. The scribes themselves opposed change, understandably guarding their hard-won privilege.[74] Initiates to a select fraternity, rewarded for mental labor by prestige and the release from physical labor, it was not in the scribes' interest to make accessible their secrets of power, even if it occurred to them to do so. And there is no evidence it did occur to them.

The scribes who faithfully served the river monarchies did not act differently from other conservators of writing traditions. Apart from conservative social forces, writing abhors change by its very nature, because by nature it is a system of arbitrary, conventional reference. Changing the conventional reference can only cause trouble. Other forces for conservation in writing traditions are found in the extraneous meanings attached to writing, meanings unrelated to "human intercommunication by means of visible marks with a conventional reference."

In Egyptian writing, as in many others, an enemy of change was the alliance between writing and magic which shared a sponsoring genius in the god Thoth.[75] Of course writing did for the Egyptian what he expected it to do. Judaism, eschewing dogma and being, to this day, in essence the study of scripture, gave rise, about the eleventh century A.D., to the Qabbalah, a theosophical system based on occult ascriptions to Hebrew signs. According to one form of Qabbalah, God created the world by means of speech; the signs of Hebrew writing represent that speech, so we

[74] For the hard road to high privilege in the scribal schools, see, for Mesopotamia, Kramer, 1961: 1–7; for Egypt, the Middle Kingdom "Satire on the Trades," translated in Lichtheim, 1973: 184–92.

[75] Partly because of this association the Egyptians clung to the pictographic character of their writing from the beginning until it disappeared in the fifth century A.D.; pictographic signs have more power than linear ones. For the need to "kill" dangerous signs in some Pyramid Texts, such as serpents and crocodiles and, oddly, ducks, cf. Barb, 1971: 156. The view of Egyptian writing as being more than a system for human intercommunication by means of visible marks outlasted Egyptian civilization in the vigorous neo-Platonic interpretation of hieroglyphs as representing Platonic Forms, based on the *Hieroglyphica* of Horapollo (fifth century A.D.?), who had real knowledge of Egyptian writing but who interpreted the signs essentially as allegories (best edited text, with Latin commentary, is Leemans, 1835; best translation into English remains Cory, 1840). The manner of thinking had such force that in the European Renaissance Horapollo's *Hieroglyphica* became the second book (after the Bible) to be set in Gutenberg's movable type (Yates, 1964: 163). Champollion was himself deeply influenced by the allegorical theory, and Horapollo's influence is still felt in the design of the American dollar bill on which, through traditions of Freemasonry, the Egyptian "Eye of Horus," according to Horapollo a symbol for God, forms the grammatical subject of *annuit coeptis*: "God has favored what we have started." For the story of the neo-Platonic interpretations of Egyptian hieroglyphics and the obstacles they raised to decipherment, Giehlow, 1915; Iversen, 1961. For magic and writing in general, see Dornseiff, 1925; Bertholet, 1949.

can capture the creative powers of God by the manipulation of Hebrew writing.[76] Such thought is a development of Jewish reverence for written revelation.

An important instrument of the magico-religious use of writing in opposing change is calligraphy, meant to stir an emotional, primarily aesthetic, response in the beholder. Calligraphy is indifferent at best and sometimes hostile to a need to facilitate thought or communicate information. Calligraphy was always important to ancient Egyptian writing. Much of the artistic tradition in aniconic Islamic culture consists of calligraphy. Far Eastern writing systems are especially fond of calligraphy, partly responsible for the bewildering conservatism of Eastern, especially Chinese, writing.[77]

Writing, in sum, attracts to itself complexes of emotional meanings unconnected directly with facilitating thought or communicating information. The literati become protectors of the traditional ways so that, except for minor alterations, writing is rarely reformed effectively from within a tradition.[78] Although the efficiency of writing can improve over time, an evolutionary model will not explain the historical changes in writing. Again and again, we find examples, within a writing tradition, of increasing complexity and difficulty.[79] From one writing to another, on the other hand, we find sudden jumps and unexpected transformations.

The best conditions for reform are found when an illiterate people becomes literate by adopting a preexisting writing. An obvious change and, from our point of view, a great improvement was the reduction in the number of word signs and determinatives that took place in the transition

[76] Qabbalah is still vital, especially among the Hasidic Jews (see Scholem, 1954). A famous example of *gematria*, whereby names are identified with the number attained by adding up the numerical equivalents of each letter (e.g. *ʾalp* = 1, *bēt* = 2 ... *kaf* = 20 ... *rōš* = 200 ... etc.) is the New Testament number of the beast, 666 (Rev. 13.18), said to stand for some form of the name of Nero. Thus N (= 50), R (= 200), O (standing for *waw* = 6), N (= 50), Q (= 100), S (standing for *semk* = 60), R (= 200): = Nero Caesar (unfortunately, Caesar is normally transliterated QVSR). Hellenistic tradition reported that Pythagoras used *gematria* for purposes of divination. Other Greeks engaged in speculation on the mystical property of letters, particularly the vowels, as in the occult name IAO, so often found on Greek magical papyri.

[77] Chinese writing, containing 50,000 signs in its full deployment, has altered little since the Shang dynasty of the second millennium B.C. The writing has surely helped to preserve the cultural identity of Chinese speakers living in alphabet-using cultures.

[78] The adoption of the Roman alphabet by Kemal Atatürk in 1928, ousting the Arabic, is the exception proving the rule: the reform was at the heart of Atatürk's revolution against Islam and the past it stood for. Under Atatürk it was a capital crime to wear the fez; he understood the power of symbolic expression.

[79] Cf. Morpurgo Davies, 1986: 58–63, for examples of progressive complication in Hittite cuneiform and in Hieroglyphic Luwian.

from Akkadian cuneiform to the more purely syllabic systems in Elamite, Hurrian, Urartian, Hattic, Luwian, and Palaic writings and, apparently, in the Persians' simplification of Elamite cuneiform.[80] In the Aegean and in the Levant a drastic simplification took place when peoples peripheral to the centers of power and culture in the Eastern river-valley cultures created purely phonetic systems with small repertories of signs. Aegean and West Semitic writing are both new systems with their own original designs.

In reducing the number of signs that characterized the ancient logo-syllabic writings, the unknown creators of these two separate experimental traditions were compelled to make serious compromises in the kind of phonetic information communicated. Aegean did better with the phonology of language but had three times as many signs as West Semitic. Each system made choices and compromises, but both jettisoned most nonphonetic signs, selecting what they needed from the array of sounds in the languages recorded. In assessing these advances, we should remember, however, that West Semitic and Aegean syllabic writing remained conceptually what writing had always been. They continued to address the mind first, the ear second. From the phonetic signs the native speaker, through convention and context, could recognize what words were intended and take account of what was meant. We must not forget that writing is a form of linguistic behavior conspicuously separate from speech, but with comparable status as a tool for human communication.[81]

No doubt the Cypriote and Phoenician writings were sufficient for the creators and practitioners of these systems, who had no need to create a notation, transferable to any language, for the approximate sound of the human voice. The Greek alphabet was such a notation, and not so much a development of what went before as an unexpected, radical break from earlier traditions of writing.

Syllabic writing used to record hexametric verse

H. T. Wade-Gery, in the J. H. Gray lectures for 1949, suggested in an *obiter dictum* of eight paragraphs that the Greek alphabet may have been fashioned explicitly in order to record hexametric verse.[82] He based his suggestion on two claims: (1) our earliest alphabetic inscriptions are in

[80] Cf. Gelb, 1963: 121.

[81] Cf. Morpurgo Davies, 1986: 52; also, Vachek, 1973: 14–17.

[82] Wade-Gery, 1952: 11–14. Support for Wade-Gery's position in Robb, 1978; Heubeck, 1979: 73–184; Schnapp-Gourbeillon, 1982 (my thanks to R. Stroud for the reference). See also Havelock, 1982, especially 166–84.

verse; (2) the Greeks must have had a special need for alphabetic writing, a need not shared by their literate predecessors, or successors. The uniqueness of this need, according to Wade-Gery, is proved by the indifference of the Phoenicians toward the great Greek invention and by the Etruscans' return to syllabic writing after taking over the Greek alphabet (when for example they write "PSCNI" for "Pescennius"). This need, thought Wade-Gery, was to record heroic verse, which cannot be properly notated in logo-syllabic or syllabic writing.

Wade-Gery's suggestion bears examination. Let us take the second claim first and rewrite the first four lines of the *Odyssey*, using Roman characters but the same system and the same spelling rules that we find in the Cypriote syllabary.

Od. 1.1, which will read A–TA–RA MO–I E–NE–PE MO–SA PO–LU–TO–RO–PO–NE O–SE MA–LA PO–LA, renders remarkably well the phonology of what we know as ῎Ανδρα μοι ἔννεπε, μοῦσα, πολύτροπον, ὃς μάλα πολλὰ, once we have made allowance for the spelling rules that allow A–TA–RA to stand for ἄνδρα, TO–RO for -τρο-, and O–SE for ὃς. O will represent the false dipthong in μοῦσα (< *μονσα).

The second line (2), which will read PA–LA–KE–TE E–PE–I TO–RO–I–E–SE I–E–RO–NE PO–TO–LI–E–TO–RO–NE PE–RE–SE for πλάγχθη, ἐπεὶ Τροίης ἱερὸν πτολίεθρον ἔπερσεν, is similarly successful. We lose the aspiration in πλάγχθη and πτολίεθρον, but otherwise receive as much phonetic information from the syllabary as the alphabet, providing we understand how to apply the spelling rules.

Od. 1.3, which will read PO–LO–TE A–TO–RO–PO–NE I–TE–NE A–SE–TE–A KA–I NO–O–NE E–KO–NO for πολλῶν δ'ἀνθρώπων ἴδεν ἄστεα καὶ νόον ἔγνω, does nearly as well as lines 1 and 2, though we lose the nasal in πολλῶν; must struggle with TE for δ'; and in the second syllable of A–TO–RO–PO–NE lose nasalization and aspiration while having at the same time to deal with the ambiguity of TO–RO.

Od. 1.4, however, PO–LA–TE O–KE E–NE–PO–TO–I PA–TE–NE A–LA–KE–A O–NE KA–TA TU–MO–NE for πολλὰ δ' ὅ γ' ἐν πόντῳ πάθεν ἄλγεα ὃν κατὰ θυμόν, suffers more from phonetic uncertainty. –TE O–KE–E–NE–PO–TO–I stands at some distance from δ' ὅ γ' ἐν πόντῳ. In addition to needing to know where to elide, the reader must read TE for δ'; read the proclitic ἐν written as belonging to the word; NE for ν; and PO–TO–I for πόντῳ.

We need not speak hypothetically, however, about the possibility of writing hexameters in the Cypriote syllabary, for it was used for just that

purpose in one surviving example. Preceded and followed by the imperative χαίρετε, four hexameter lines were incised at the base of a votive relief depicting a seated Zeus with scepter and thunderbolt; dedicants stand to either side. the inscription, assigned to the late fourth century B.C. on the basis of art-historical considerations, was found in a sanctuary at Golgoi on Cyprus.[83] Here is a transcription of the Cypriote characters, with O. Masson's transliteration into Greek alphabetic characters:

KA–I–RE–TE
χαίρετε.
(1) KA–RA–SI–TI · [WA]–NA–XE · KA–PO–TI · WE–PO–ME–KA · ME–PO–TE–WE–I–SE–SE
– ⏑ ⏑ | – – | – ⏑ ⏑| – ⏑ ⏑| – ⏑ ⏑ | – –
Γράσθι, [ϝά] ναξ, κὰ(ς)πῶθι. ϝέ πο(ς) μέγα μήποτε ϝείσης
(2) TE–O–I–SE · PO–RO–[A–TA]–NA–TO–I–SE · E–RE–RA–ME–NA · PA–TA–KO–RA–SA–TO–SE
– – | – ⏑ ⏑| – ⏑ ⏑| – ⏑ ⏑ | – ⏑ ⏑| – –
θεοῖς πρὸ ἀθανάτοις ἔρε ραμένα πά(ν)τ' ἀκο ράστως.
(3) O–WO–KA–RE–TI · E–PI–SI–TA–I–SE · A–TO–RO–PO · TE–O–I · A–LE–TU–KA–KE–RE ·
– ⏑(?) ⏑| – – | – – |– – | – ⏑ ⏑ | – –
Οὐ γάρ τι(?) ἐπίσταῖς ἀ(ν)θρώπ ω θεῶι, ἀλ(λ)' ἔτυχ' ἀ χήρ
(4) TE–O–I · KU–ME–RE–NA–I–PA–TA · TA–A–TO–RO–PO–I · PO–RO–NE–O–I ·
– ⏑ ⏑| – – | – ⏑ ⏑|– –| – ⏑ ⏑| – –
θεῶι κυμε ρῆναι πά(ν)τα, τὰ ἄ(ν)θρωποι φρονέ·ωῖ.
KA–I–RE–TE
χαίρετε.

The reconstructed Greek text seems to mean something like:

– Greetings.
(1) Eat, O noble, and drink. Here is some good advice: never wish,
(2) in the presence of the deathless gods, for all that you love, showing yourself to be insatiable.
(3) For man has no power over God: on the contrary, the power befalls
(4) to God to dispose of all man's intentions.
– Greetings.

Neither Masson's transliteration nor his interpretation of the meaning is derived easily from the Cypriote text. Both transliteration and interpretation are based on the work of many scholars and remain highly conjectural. In line (1) the verb Γράσθι, "eat," deduced from KA–RA–SI–TI, is a form unattested elsewhere; presumably it comes from *γράσμι.[84] πῶθι, "drink" (cf. σύμπωθι, Alkaios fr. 401b Lobel–Page),

[83] For the following, see *ICS* 284–6.
[84] Cf. γράω in Call. fr. 551 Pfeiffer and in Hesych. *s.v.* (γρᾶ· φάγε).

from PO–TI is also *hapax legomenon*. The *sigma* (ς) restored after κὰ- and ϝέπο- are required by meter, but some editors prefer to see assimilation here and to transliterate κά(π) πῶθι[85] and ϝέπο(μ) μέγα. The syntax of ϝέπο(ς) μέγα, literally "great word," is abrupt, but presumably it is a nominal sentence signifying "pay attention to what follows." ϝείσης, "wish"(?), from WE–I–SE–SE is a form unattested elsewhere and difficult to explain.[86]

In line (2) it is by no means clear how to take PO–RO–. The verb *πόρω, "furnish," "give," is possible, but hard to translate. One commentator suggests the adverb πόρω for πόρρω, "without respect for," though form, sense, and construction are difficult. Masson adopts πρό, "in the presence of," although the use of the dative with this preposition is otherwise unknown. We are left with hiatus between πρό(?) and ἀθανάτοις; θεοῖς must be reduced by synizesis to a single long syllable; and πρό is short.

ἐρεραμένα, "things loved," from E–RE–RA–ME–NA is the fourth *hapax* in two lines, evidently a reduplicated perfect from ἐράω, "to love."

From PA–TA–KO–RA–SA–TO–SE can be taken πα(ν)τακόραστος, "all-insatiate" or πα(ν)τακοράστως, "all-insatiable." In Masson's πά(ν)τ' ἀκοράστως, ἀκοράστως, "instatiably," is otherwise unattested. A. Scherer suggested for the whole line[87] θεοῖς πόρο(ς) ἀθανάτοις ἐρεραμένα πά(ν)τα κορᾶι δό(ν)ς where πόρος stands for πάρος, κορᾶι is implausibly wrested from KO–RA–SA, and *κορά is improbably derived from κείρω, "devour." The meaning might be something like "Give up all beloved things to be devoured in the presence of the gods."

In line (3) the correct pronunciation of O–WO–KA–RE–TI is difficult. οὐ ought to be written O–U; O–WO should represent ὀϝο. And there is no obvious way to make these syllables scan: οὐ γάρ τι ἐ- must all be forced into the first foot. As the text stands, γάρ will be read as short and τι ἐ- will be compressed into a second short syllable. Masson tentatively suggests οὐ γὰρ ἔτι; even so the line does not scan.

E–PI–SI–TA–I–SE Masson reads as ἐπίσταις standing for ἐπίστασις, intervocalic σ having been weakened to an aspirate. There is no other authority for ἐπίστασις with the required meaning "domination."

For the last word, KE–RE (the reading KE is itself an interpretation, since the inscribed sign looks more like an angular RO), Masson accepts

[85] D. R. Jordan suggests to me κάππωθι, taking it to mean κατάπωθι, "drink down."

[86] Hoffmann, 1891: 280, takes it to be a subjunctive aorist from ϝίεμαι, comparable to the Homeric aorist (ϝ)είσατο. The aorist ending in *ēte* must then be a dialectal form belonging to Arcado-Cypriote.

[87] *ICS* 285, note 2.

a dialectal χήρ for χείρ, in the extended sense "power" (cf. χεὶρ μεγάλη *Il.* 15.695). Another editor suggests for the whole line οὐ γὰρ {ἔτι} ἐπιστάτης' Ἄτροπος θεῶι, ἀλλ' ἔτυχ' ἁ κήρ, supposing that the engraver mistakenly inserted the sign –TI–. The line will scan this way and could be imaginatively translated, "God is not ruled by an unswervable will; a man's fate is in the hands of chance."

In line (4) κυμερῆναι from KU–ME–RE–NA–I would be a dialectal form for κυβερνῆσαι, "to dispose of." PO–RO–NE–O–I will have to stand for a potential subjunctive, φρονέωϊ, syncopation for an unattested form *φρονέωσι.

Observations

All of this seems daunting, though many of the difficulties in this text derive from our unfamiliarity with Cypriote dialect and are no different from those we face in reading a dialectal inscription in alphabetic writing: of about 24 different words in these four lines we may count ten forms unattested elsewhere. Yet while the Cypriote syllabary could in theory have served as a notation for someone familiar with the complexities of the Greek hexameter, and obviously these late hexameters were written down in it, too many uncertainties remain in the phonological information that this script communicates for the script ever to have served as a practical vehicle for recording ambitious poetic compositions. And it never did so serve.

The Phoenician syllabary is even less suited to preserve the metrical qualities of the Greek hexameter. If we rewrite the first two lines of the *Iliad*

Μῆνιν ἄειδε, θεά, Πηληιάδεω 'Αχιλῆος
οὐλομένην, ἣ μυρί' 'Αχαιοῖς ἄλγε' ἔθηκε

in the Phoenician syllabary, the Roman transcription might look like

$M^{x}N^{x}N^{x}$ D^{x} T^{x} $P^{x}L^{x}D^{x}$ $K^{x}L^{x}S^{x}$
$L^{x}M^{x}N^{x}N^{x}$ H^{x} $M^{x}R^{x}$ $K^{x}S^{x}$ $L^{x}G^{x}$ $T^{x}K^{x}$

Even if one came up with a theory of the meaning of these lines, the meter would be irretrievably lost in this vowelless script.

The metrical qualities of the Greek hexameter are inherent in the patterning of vowels. One line in the *Iliad* contains eighteen vowels (some in diphthongs, it is true) and only nine consonants (2.666: υἱέες υἱωνοί τε βίης 'Ηρακληείης). Hexametric verse, a nonvernacular traditional language

"spoken" only by the *aoidoi*, the oral poets of ancient Greece, contains an extraordinary amalgam of archaisms, different dialectal forms, and special "epic" forms that never existed in any spoken Greek at any time.[88] Oral poets, Homer and Hesiod and others, had to compose metrical verse spontaneously, unaided by writing. To do this they developed, over several centuries, appropriate poetic techniques. Their tradition reached back at least to the Greek Bronze Age, to judge from Arcado-Cypriote elements in the poetic dialect and other technical features of verse construction. The Aiolic element, too, in Homeric verse is strong;[89] it appears that the tradition has descended through Aiolic speaking bards, before its diction was made to conform to Ionic usage where alteration did not conflict with traditional formulas.[90]

Perplexing, and important to the theory of the oral origins of Homeric diction, are the many artificial forms established by analogy or by the tension between the singer's spoken dialect and the foreign forms he has inherited from the tradition. If we can trust the vulgate text to represent what was actually sung, and not the tampering of later scribes who wished to make the lines scan, someone concocted ἐήνδανε by combining the Aiolic poetic *ἐάνδανε with Ionic ἤνδανε, "he pleased." Again, predisposed by the familiar contractions of his own speech, but swayed by uncontracted forms in the traditional diction, the Ionic bards fashioned such artificial words as μνωόμενοι, a middle participle from μιμνήσκω, "remember." In Ionian vernacular speech one should begin the word with μνω-, but the force of the hexametric rhythm compelled the bard to continue μνωόμενοι. Again, the Ionian bards, accustomed to say ὁρῶ, "I see," in daily speech, changed the uncontracted poetic ὁράω to ὁρόω, shortening the penultimate

[88] See especially Meister, 1921: 226–52; M. Parry, 1971: 325–64; Kirk, 1962: 142–50, 192–203; Kirk, 1964: 90–118; Kirk, 1975: 828–30; Hainsworth, 1982. The work of Hoekstra (1965; 1981) is fundamental. For recent excellent surveys of the whole topic, Ruijgh, 1985; West, 1988; Hainsworth, 1988.

[89] Arcado-Cypriote dialect is closest, of the historical dialects, to Mycenaean: some features are the infinitive of contract verbs in -ῆναι, the suffix -τερος with the sense of one of a pair of things, forms such as πτόλις, πτόλεμος and words such as αἶσα, ἀνώγω, αὐτάρ, κέλευθος. Aiolic is represented by the dative in -εσσι, the first aorist in -σσ-, πίσυρες for Ionic τέσσαρες, φήρ for θήρ, ἴα for μία, ἄμμες for ἡμεῖς, and genitives in -αφο and in -οιο.

[90] Thus *ēta* is substituted for the original long *alpha* and ἦν appears for the third singular imperfect of εἰμί, represented by ἦς in all other dialects. Neither feature affects the scansion, and since neither can represent archaic forms from other dialects, the singer was a speaker of Ionic. That Homer's language was specifically Ionic and not Attic is proved by the use of *ēta* even after ε, ι, ρ, where Attic would use long *alpha*, and of -σσ-, ἦν (for εἰ + ἄν), ἥνεικα, ἱστίη for Attic -ττ-, ἄν, ἤνεγκα, ἑστία (but cf. Horrocks, 1986).

vowel to fit the meter. Because the Ionic spoken word for "light" was φώς, the inherited poetic φάος became φόως. Contracted Ionic σῶς, "safe," led the poets to alter inherited σάος to σόος, to lengthen vowels artificially when the meter requires: so τεθνηῶτα stands beside τεθνηότος, and ὁμοιίου from *ὁμοιίο and ὅου from ὅο stand before doubled consonants.

The *aoidic* dialect never corresponded to the everyday speech of any Greek people at any time. Therefore it could never have been written down in accordance with the principles that had ruled phonetic writing from the beginning: that the writing should provide enough phonetic clues for the native speaker to recognize a word whose sound he already knew, but not inform the reader, even approximately in the case of Phoenician, of the actual sound of human language. There were no native speakers of Greek hexametric poetry except for the bards, who had no use of writing. There was no way to write down Greek hexameters in one of the old logo-syllabic writings or in a syllabary – even in versatile Cypriote – and expect the reader to reconstruct from the writing the form of the line.

The idiosyncratic nature of Greek alphabetic writing

The purpose of writing was no longer the production of archives for the king's private use within the palace. Now it served a public purpose: it allowed the various aspects of social and political life to be disclosed to the gaze of all people equally. (J.-P. Vernant)[91]

Early Greek alphabetic writing is frankly idiosyncratic in its concern to represent accurately the phonetic elements of speech. We tend to think of the writings descended from the Greek alphabet as functioning in the same way as did the Greek alphabet, making allowances, naturally, for historical orthography, analogy, foreign pronunciations, and the like. However, the notorious English orthography, which has not prevented English from becoming the most widely used language on earth, reminds us in a salutary way how different "alphabetic writing" can be from what it was for the ancient Greek:

> I take it you already know
> Of tough and bough and cough and dough?
> Others may stumble, but not you,

[91] Vernant, 1982: 37.

On hiccough, thorough, laugh, and through.
Well done! And now you wish, perhaps,
To learn of less familiar traps?

Beware of heard, a dreadful word
That looks like beard and sounds like bird,
And dead: it's said like bed, not bead –
For goodness' sake don't call it "deed!"
Watch out for meat and great and threat.
(They rhyme with suite and straight and debt.)

A moth is not a moth in mother
Nor both in bother, broth in brother,
And here is not a match for there
Nor dear and fear for bear and pear,
And then there's dose and rose and lose –
Just look them up – and goose and choose,
And cork and work and card and ward,
And font and front and word and sword,
And do and go and thwart and cart –
Come, come, I've hardly made a start!
A dreadful language? Man alive!
I'd mastered it when I was five.[92]

The vocalization of English writing, where long [i] can be spelled in eleven different ways (m*e*, f*ee*, f*ie*ld conc*ei*ve, mach*i*ne, k*ey*, qu*ay*, p*eo*ple, subp*oe*na, C*ae*sar), and *a* can have at least five different sounds (m*a*n, w*a*s, n*a*me, f*a*ther, *a*rom*a*),[93] has become so arbitrary that the presence of a vowel in English orthography may indicate only that a vowel is to be sounded, not its quality. This the reader supplies from his own knowledge of the spoken language, as did the ancient Egyptian or Phoenician in reading his scripts. In modern English orthography we have returned partly to logographic writing: for example, "weigh" and "way" are written differently though their pronunciation is the same. When we write English, we do not consider the sound of the word as we know it to be spoken, but struggle to remember how convention requires the word to be spelled. English orthography presents special problems, but we find similar developments in other "alphabetic" writings, including modern Greek, where ι, η, υ, ει, and οι are pronounced in exactly the same way as /i/, while αι and ε are both sounded as /e/.

[92] From a letter published by one T.S.W. in *The Sunday Times* (London), Jan. 3, 1965, reprinted in *Education Week*, Sept. 6, 1984.

[93] Gelb, 1963: 224.

The ancient Greek alphabet was, by contrast, a rigorous phonetic system. In the archaic period every Greek territory recorded regional variations of pronunciation in its inscriptions and, to a lesser degree, in its local literary tradition. This extraordinary situation has made necessary the study of Greek dialectology. In archaic Greece, a fundamental principle of writing was that the written word should faithfully reflect the way the word was spoken. For ourselves, inheritors of a long literate tradition, a direct translation from spoken to written language is often used for comic effect, and to underline the illiteracy of the speaker, as when Mark Twain makes Nigger Nat say:

Mars Sid, you'll say I's a fool, but if I didn't b'lieve I see most a million dogs, er devils, er some'n, I wisht I may die right heah in dese tracks. I did, mos' sholy. Mars Sid, I *felt* um – I *felt* um, sah; dey was all over me. Dad fetch it, I jis' wish I could git my han's on one er dem witches jis' wunst – on'y jis' wunst - it's all *I*'d ast. But mos'ly I wisht dey'd lemme 'lone, I does.[94]

But this is just how the Greek wrote in his early alphabetic writing. Always he listened with cocked ear to the very sound of words, ever striving to record the words just as he heard them.

Earlier we examined an apothegm from the Egyptian *The Instruction of Amenemope*, a homily against the acquisition of illicit wealth (above, 80ff.). "If you achieve riches through theft, they will not stay the night with you...," noted the Egyptian sage. Hesiod, inheriting the same wisdom tradition along with the many Eastern myths he retells, repeats the same advice in *Works and Days*. Wealth is not a thing to take by force, Hesiod advises his brother Perses. Better to earn wealth through the sweat of one's brow and to take what is given by God. "For if one seizes wealth by violence, or through deceit – a common occurrence when the desire for profit overrules reason and shamelessness tramples down shame –" (*Erg.* 321–4), then:

ῥεῖα δέ μιν μαυροῦσι θεοί, μινύθουσι δὲ οἶκον
ἀνέρι τῷ, παῦρον δέ τ' ἐπὶ χρόνον ὄλβος ὀπηδεῖ. (*Erg.* 325–6)

the gods erase him with little trouble and make his estate shrivel up;[95] his wealth lasts only for a short while.

[94] *Adventures of Huckleberry Finn*, ed. by H. N. Smith, Boston, 1958: 209.

[95] So economical is the Greek system in accomplishing its task, to record the sound of human speech, that we are deprived of contextual information that *would* be useful in grasping the meaning as well as the sound, information like that provided by semantic indicators in the Egyptian text: we are given no way to understand that the first particle δέ in line 325 is inferential, while the second δέ in the same line is conjunctive. Phonetically the same, they are written the same.

We have observed that the parallel Egyptian text, *Amenemope*, is written stichically, and may have originally had a metrical structure. We cannot recover that structure, however, for the scribes who recorded the work were content with a writing which suppressed the sound and rhythm of poetic speech. Recorders of the Greek *aoidoi*, on the contrary, set great store by the subtle, sinewy, and complex rhythm of the hexameter, recognizable at once even in fragments, small or corrupt.

Is it not plausible, then, that someone, eager to preserve the rhythm as well as the content of hexametric song, was inspired to impose a vocalic system on the preexistent Phoenician syllabary and so invent the alphabet? that the alphabet came into being as a tool for recording hexameter verse? Before we pass judgment too hastily on this tantalizing suggestion, let us make a thorough review of the earliest fragments of Greek writing which still survive, to see what light they can shed on the problem.

3

Argument from the material remains: Greek inscriptions from the beginning to *c.* 650 B.C.

The earliest examples of the Greek use of the alphabet appear scratched on vases and painted on a clay plaque...Some of them are in verse, and it may even have been this new alphabet which enabled Homer to compose and set down his great poem(s)... (J. Boardman)[1]

That the alphabet "might have been invented as a notation of Greek verse" is a rather attractive idea, and one wishes it could be proved...(R. Pfeiffer)[2]

THE LACK OF SEMANTIC DEVICES IN EARLY GREEK WRITING

Certain formal features of early Greek alphabetic writing suggest, *prima facie*, a notational system based directly on the users' immediate perception of speech as a continuous stream of sound, a perception in agreement with Wade-Gery's hypothesis; for this stream of sound may well have been *aoidic* song. These features are, first, the lack of word, clause, and sentence division in archaic Greek inscriptions (and much later ones too), and, second, the *boustrophedon* style.

The lack of word, clause, and sentence division

The separation of one word from another was an old achievement of earlier writings. In Egyptian, phonetic and semantic indicators make clear demarcations between words, and sometimes between clauses and between sentences; in Cypriote and Phoenician a dot, some other mark, or a space divides one word from another. But in all Greek inscriptions dated before *c.* 650 B.C., only the Pithekoussan "Cup of Nestor" (below, inscription no. 59 163ff.) and the early sherds from the Potters' Quarter at Corinth (below, inscription no. 21 133ff.) show any evidence of semantic

[1] Boardman, 1980: 83–4.

[2] Pfeiffer, 1968: 23.

indicators.[3] Although in later archaic inscriptions the Greek writer sometimes placed two or three dots in a column, or in two parallel columns after groups of words, the practice was haphazard, soon died away, and was not revived until Roman times.[4]

The Greek's indifference to distinguishing graphically the elements of speech goes so far that, though words extending from one line to another are often broken at the syllable, they can also be broken at any other place. For example, four-lettered γαης, "of Earth," scratched on an early Attic sherd (below, inscription no. 24 135) written in two lines *boustrophedon*, breaks between γαη and ς, where there is plenty of room to write the whole word. In an inscription from Cumae (below, inscription no. 60 167), λεϙυθος, "cup," breaks after λ, and κλεφσει, "will steal," after σ. The aesthetically pleasing *stoichedon* style of the late sixth to early third centuries, in which letters are placed in the squares of a grid or checkerboard,[5] was made possible by indifference to where a word should be broken: even the particle δε can be divided, δ | ε.[6]

"*Back and forth, as the ox turns*"

ἐπαρίστερ' ἔμαθες, ὦ πόνηρε, γράμματα.

You have learned to write from right to left, you wretch! (Theognetos *ap.* Athen. 671b)

L. H. Jeffery overturned the long-held view that the earliest alphabetic Greek was first written right to left in imitation of its Phoenician model, then written *boustrophedon* in a transitional phase, and finally left to right as we do today.[7] Rather, Jeffery argued, *boustrophedon* was the original style of Greek alphabetic writing (i.e., the adapter's style). She made her case by organizing the surviving examples of early Greek writing into four categories, according to whether they are:

(a) single lines written retrograde;
(b) *boustrophedon* texts beginning either from left to right or from right to left;

[3] A fact so curious that Rhys Carpenter doubted the early date of both examples on this basis: see Carpenter, 1963.

[4] When it was used inconsistently. For dots in parallel columns: *IG* I Suppl. p. 4; Kern, 1913: pl. 13, upper. For a use of diacritical marks in occasional accounts from the fourth and third centuries B.C., where two vertical dots are sometimes used to separate numerals from the text, see *IG* II^2 1672, 329/8 B.C.; *IG* XI.2 203, 269 B.C., Delos (my thanks to G. Reger for the reference). For the Attic evidence, Threatte, 1980: 73–98.

[5] Austin, 1938. Also Raubitschek, 1940; Harder, 1943; Threatte, 1980: 60–4.

[6] Cf. Woodhead, 1981: 33.

[7] *LSAG* 43–50. Cf. Threatte, 1980: 52.

(c) single lines written from left to right; and
(d) two or more lines written in continuous retrograde, from right to left.

It is examples of (d) alone that support the old thesis of an original continuous retrograde style; for examples of (a) and (c) (and obviously (b)) are possible in a *boustrophedon* style, because the writer may begin a short text at either left or right. Already in 1909 A. Wilhelm had explained some examples of (d) as resulting from the effort to create a balance between opposing inscriptions on either side of the approach to a temple or city gate.[8] Explaining other examples of (d) on other formal grounds,[9] Jeffery concluded that "the Greeks who adopted the North Semitic alphabet were never really well-grounded in the process of writing continuously retrograde, and so from the beginning, when more than one line was required, they used instinctively the *boustrophedon* system, regarding the signs as reversible profiles."[10]

A curious variation of *boustrophedon* writing has been called *Schlangenschrift*, "snake writing," especially in reference to the early rock inscriptions of Thera, where there are no lines at all; the writing stretches out in long bands like a snake uncoiling.[11] The *boustrophedon* style is exceptional in the history of writing (though not unique), and one may prefer to see in it, too, a graphic analogue to the continuous flow of speech, remembering that the division of language into lines all proceeding in the same direction, and returning to a margin to begin again, is an arbitrary institution of established literacy.

The lack of sense of a certain direction for his writing suited the Greek's compulsion to transcribe exactly what he heard without regard for the graphic orientation in space which assists the reader in other writings. The Greek evidently allowed his ear to guide his hand, careless of a consistent direction or a consistent orientation of the characters. The Greek's refusal to divide words, clauses, and sentences, and his use of the *boustrophedon* style, seem to testify to a creative, original, and governing idea behind this writing: to translate directly into visible symbols what is heard. This governing idea is consistent with Wade-Gery's hypothesis. For although we ourselves analyze hexametric oral poetry into recurring metrical

[8] Willhelm, 1909: 31ff.

[9] The apparent exception of more than one line in continuous retrograde – the three lines continuous retrograde on the Pithekoussan "Cup of Nestor" – can be explained as reflecting its inspiration in a drinking game, a *skolion*, to which three diners contributed (below, 166).

[10] *LSAG* 45. Cf. Woodhead, 1981: 24–9.

[11] See Zinn, 1950–1: 1–36.

patterns represented graphically by one line succeeding another, A. B. Lord has noted how the oral poet himself – and, presumably, recorders of oral poetry in the days of the adapter – has no concept of the line, or even of the word:

> When asked what a word is, he [the oral poet] will reply that he does not know, or he will give a sound group which may vary in length from what we call a word to an entire line of poetry, or even an entire song. The word for "word" means an "utterance." When the singer is pressed then to say what a line is, he, whose chief claim to fame is that he traffics in lines of poetry, will be entirely baffled by the question; or he will say that since he has been dictating and has seen his utterances being written down, he has discovered what a line is, although he did not know it as such before because he had never gone to school.[12]

Let us, however, turn to the inscriptions themselves, and their semantic content, to see if we can carry our case beyond the evidence *prima facie*. Let us include in our survey all surviving inscriptions from the earliest down to about 650 B.C., the first 150 years of Greek literacy. We will accept the dates given by most authorities while recalling that there is always much uncertainty in dating archaic inscriptions.[13] We will be safest dealing with writing on pottery sherds large enough to date by style, or found in datable contexts; yet a graffito was rarely made at the time of manufacture – it could have been made years later, even decades. We are much better off with dipinti, painted on before firing, and much worse off with graffiti on stone, where only letter shapes inform us about the inscription's date. Because our purpose is to ascertain the general nature of early Greek writing, the sometimes ambiguous evidence need not spoil our conclusions.

For purposes of exposition, I will divide the material into two arbitrary categories: I "short" inscriptions, and II "long" inscriptions. Nearly everything from category I will consist of small fragments, but I shall divide them as best as possible into general categories. To category II we will be able to assign only four or five examples, whose worth, however, is very great. Except for the very early Euboian material, I shall omit most inscriptions of a single or a few letters, too short to yield useful conclusions. Unfortunately, there is not space to comment on more than exceptional epigraphic features.

[12] Lord, 1960: 25.

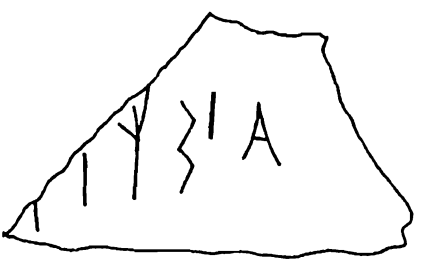
[13] By "inscription" I mean writing made in any way on any substance. By "graffito" I mean writing scratched on the surface of something. By "dipinto" I mean writing painted on the surface of a pot before firing. For a preliminary study of the inscriptional evidence presented in this chapter, see Powell, 1989.

I. "SHORT" GREEK INSCRIPTIONS FROM THE BEGINNING TO 650 B.C.

The Euboian finds: names, parts of names, possible parts of names and simple declarations of ownership

One of the first impulses of the newly literate is to write his own name. I have suggested that the informant's first demonstration to the adapter was to write the adapter's name. We should not be surprised to discover that many archaic Greek inscriptions are parts of names, or whole names, including the earliest Greek inscriptions of all from Euboian Lefkandi (Map I) and, in the far west, from the Euboian colony of Pithekoussai (Map III). From Lefkandi, from which classical Eretria was founded *c.* 800 B.C. – perhaps in connection with recurring warfare over the Lelantine plain – come three graffiti[14] which may be parts of personal names (nos. 1–3);[15] we have already noted (above, 57) how "red" *khei* (ψ = [kh]) appears in the extremely early inscription no. 1:

No. 1 (after Popham–Sackett–Themelis, 1979–80: pl. 69b)



←Αισχρ̣ι[ον?]

[14] See Popham–Sackett–Themelis, 1979–80: 89–93, pl. 69.

[15] For conventions of editing I follow Dow, 1969. I omit accentuation in my transcriptions, following Jeffery's practice in *LSAG* (but I do not write *longum* over the long vowels). Although the Byzantine system of accentuation is conventional and perhaps appropriate for most epigraphic publications, it is out of place in a study of alphabetic origins.

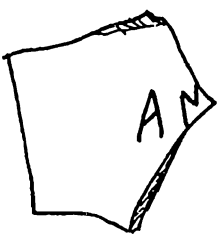
No. 2 (After Popham–Sackett–Themelis, 1979–80: pl. 69a)

←Σαμ̣[ος? *or* ιος?]

or

→[---]μ̣ας

No. 3 (after Popham–Sackett–Themelis, 1979–80: pl. 69d)



←[---]σα

or

→Αμ[---].

We cannot be sure, however, that these fragments did not once belong to longer expressions.

From the other end of the Mediterranean, the Euboian colony of Pithekoussai off the Bay of Naples, recent excavations have turned up about 35 alphabetic inscriptions earlier than 675 B.C., most still unpublished.[16] Originally thought to be the oldest at *c.* 750, now put at *c.* 710,[17] is a two-letter graffito with sidelong *alpha*, presumably retrograde -πα-. If Greek, this is the only instance in the entire range of Greek epigraphy of *alpha* written sidelong, except for the α on the Dipylon oinochoe (below, 157ff.):

[16] But the earliest fragments seem to be published (Johnston, 1983: 63).

[17] Buchner, 1978: 139.

No. 4A (after *EG* I, fig. 87)

←[---]𐤐𐤀𐤐[---]

But turned upside down the inscription could be read as Phoenician ʾl, the Semitic definite article:[18]

No. 4B (after *EG* I, fig. 87)

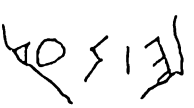
←[---]𐤐lʾ𐤐[---]

Two other writings, from a pot of Corinthian manufacture and another of Pithekoussan, appear to present fragments of the same name, presumably the owner's:[19]

No. 5 (after Johnston, 1983: fig. 8a)

←Τεισον[---]

No. 6 (after Johnston, 1983: fig. 8b)



←[---T]εισον[---]

[18] Guarducci, 1964: 129, pl. 40.2 and *EG* I 225, fig. 87; Heubeck, 1979: 123, fig. 48. For the inscription as Phoenician, Rocco, 1970, and McCarter, 1975b.

[19] Johnston, 1983: 67, figs. 8a, b. Johnston thinks the name is the maker's, in which case he must have moved from Corinth, taking pots with him, to Pithekoussai.

What has been taken as the name of the Greek supplemental letter *phei* is written beneath the handle of a large amphora, *c.* 740; there is also a short inscription in West Semitic and some other markings. The jar seems to have first contained some commercial product, then was reused for a child burial:[20]

No. 7 (after Johnston, 1983: fig. 2)

→φι

The inscription, however, is probably a doodle (above, 57, note 169). We do not expect to find the names of Greek letters spelled out anywhere near so early.

Another Pithekoussan fragment, of unknown meaning, has five complete letters written from right to left:[21]

No. 8 (after Peruzzi, 1973: pl. 4a)

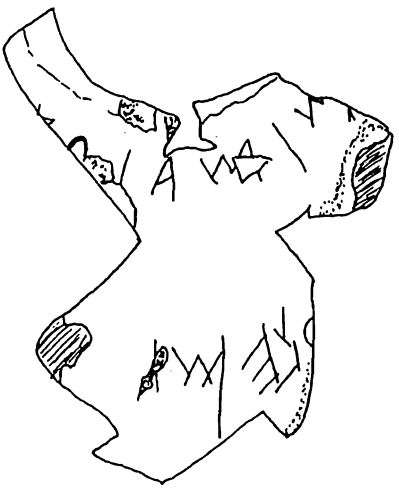
←[---]ϻακισμ[---]

[20] Buchner, 1978: 131; Garbini, 1978; Johnston, 1983: 64, fig. 2.

[21] Peruzzi, 1973: 25–6, pl. 4a; Heubeck, 1979: 123, fig. 49; Johnston, 1983: 64, fig. 3. Peruzzi takes the last letter as *san*, accepting the combination *sigma* plus *san*.

Another Pithekoussan fragment, *c.* 740, is inscribed on the upper part of a sherd:[22]

No. 9 (after Johnston, 1983: fig. 1)



←[---]μιμαλο̣ν̣[---]

perhaps,

ε]μι Μαλο̣ν̣[---]

I belong to Malon[---]

The lower portion of the same sherd has the same proprietary formula, "I am + noun in the genitive":[23]

←[---]ο̣σεμι

I belong to [someone whose name in the genitive ends in]-os

The longest Pithekoussan fragment yet published is also our earliest dipinto, painted from right to left on a fragment of a Late Geometric krater:[24]

[22] Buchner, 1978: 135–7, fig. 4; cf. Johnston, 1983: 64, fig. 1. From the drawing I read the fifth letter as probably *lambda*. I can not see what is Buchner's evidence for the final *omicron* that he prints.

[23] For the formula see Burzachechi, 1962.

[24] Peruzzi, 1973, pl. III; Heubeck, 1979: 123, fig. 50 (shown upside down); Johnston, 1983: 64, fig. 4 (as shown by Johnston, there is no final ε).

No. 10 (after Jeffery, 1976: fig. 1)

←[---]ινοσμεποιεσε

i.e.

[---]ινος μ' εποιεσε

[somebody whose name in the nominative ends in]-inos made me

Another Pithekoussan sherd bears the fragmentary text:[25]

No. 11 (after Johnston, 1983: fig. 8c)

←[---]ευποτα[[ε]]α[---]

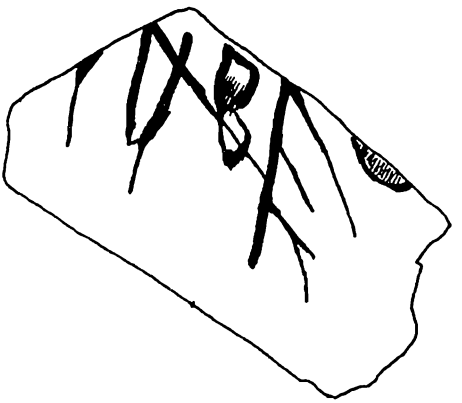
...delicious...

The fragment, in which α has apparently been superscribed over ε, or vice versa, may be from a metrical inscription, to judge from the similar ευποτ[ον of the Cup of Nestor inscription (below, 164).

Finally, we might include in this group a recently published inscribed Late Geometric Attic sherd (*c.* 760–700 B.C.) from Al Mina, the Asian trading depot where the Euboians were prominent, whence the adapter might have found his model:[26]

[25] Peruzzi, 1973: 26; Heubeck, 1979: 123, 6c; Johnston, 1983 : 67.
[26] Boardman, 1982a.

No. 12 (after Boardman, 1982a)



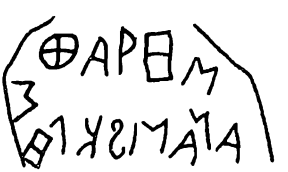
→[---]ϝαβε

Though wretched and broken, these earliest examples of Greek alphabetic writing show: (1) that Greek writing was in popular use in the farflung Euboian–Pithekoussan circuit before 750 B.C.; (2) that popular expressions of early Greek writing include the declaration of ownership (simple name, or ειμι + name in the genitive); the declaration of the maker (-ιος μ' εποιεσε); and, possibly, the recording of metrical verse (ευποτα). Similar examples are found in somewhat later contexts from other parts of the Mediterranean.

Other simple names

From the city of ancient Thera, perched high on a rocky spine of Mt Mesavouno on the island of Thera, comes a plethora of names inscribed in large letters on rock outcroppings. Unfortunately there is no pottery or sculpture to help us date the writing. Perhaps the names of divinities, next to offering-hollows near the later temple to Apollo Karneios, and a few personal names, are as old as the early seventh or even the eighth century B.C. Two personal names are:[27]

No. 13 (after *LSAG*, pl. 61 (1a, ii))



[27] *IG* XII.3 573; *LSAG* 318–19, pl. 61 (1a,ii).

→ ←
θαρης | Ανανισκλης

Note *san*, usual for Theran script.

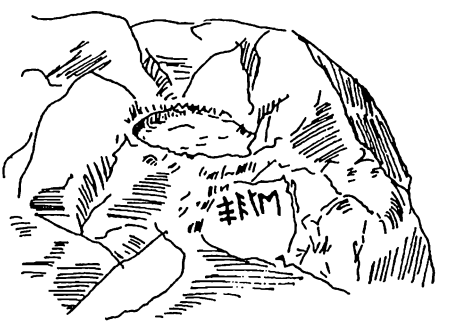
Three divine names are:[28]

No. 14 (after *IG* XII.3 357)

←Βορεαιος

i.e., the North Wind, still a remarkable presence on this high cliff;

No. 15 (after *IG* XII.3 360)



→Ξευς

[28] No. 14 = *IG* XII.3 357, *LSAG* 319, pl. 61 (1b,ii); *EG* I 350–1, fig. 178; cf. Heubeck, 1979: 125 (11). No. 15 = *IG* XII.3 360; *LSAG* 317, pl. 61 (1b,i); *EG* I 350, fig. 177. No. 16 = *IG* XII.3 351; *EG* I 350, fig. 179.

the great god worshipped, with Apollo, on the Theran promontory. Note ζ for [z], or some similar value; and

No. 16 (after *IG* XII.3 351)

→Khιρον

A personal name was found in a grave, scratched on a plain amphora which contained a small Subgeometric cup. We can date the inscription to *c.* 700–650 B.C.:[29]

No. 17 (after *LSAG*, pl. 61 (2))

→Δαμαινις

From Naxos comes a recently discovered sherd, assigned to the mid-eighth century by its publisher:[30]

No. 18 (after Lamprinoudakes, 1981: pl. 20)

It seems to read:

←Αλικοεος

[29] *IG* XII.3 986; *LSAG* 318, pl. 61 (2).

[30] Lamprinoudakes, 1981, pl. 20, gives Αλοκιεος. A. Snodgrass brought this reference to my attention. From the poor photograph it is impossible to be sure of the correct reading, but the second and third signs taken together could be π. The fourth sign could be λ. Because the complete name was inscribed on the inner surface of the pot, the fabric provides only a *terminus post quem*.

From Naxos also comes the divine name (no illustration):
(No. 19)

Αφρο[δ]ιτη

on an amphora in the Orientalizing style, perhaps *c.* 650.[31]

From the temple dump near the precinct of Apollo on the island of Kalymnos, off the coast from Halikarnassos, come several inscribed sherds, one of the "Rhodian Geometric" style of the early seventh century, bearing the name:[32]

No. 20 (drawn from autopsy)

· Αλκιδαμ[ος?]

From Corinth come three inscribed sherds discovered by A. N. Stillwell and published in 1933.[33] The sherds excited controversy at the time, because Stillwell put them at 750–725 B.C.,[34] calling in question Carpenter's late date of *c.* 700 for the introduction of the alphabet. Carpenter replied by doubting the archaeological context in which the sherds were found, arguing for a sixth-century date on the basis of letter forms and the use of diacritical word and phrase dividers.[35] Jeffery gingerly places the sherds at *c.* 700[36] while A. Boegehold reminds us of the

[31] *LSAG* 291.

[32] Segre, 1952: 218, no. 247, pl. 126; *LSAG* 353–4, pl. 69 (45). My thanks to Mr A. Nomikos for allowing me to inspect this and other inscribed sherds in the museum at Hora-Kalymnos (Jeffery mistakenly places this sherd in the Rhodes museum, *loc. cit.*).

[33] For discussion, see Boegehold, 1974: 25–31; Boegehold, 1983: 281. Definitive publication of these sherds now in Stillwell *et al.*, 1984: 358–9. See *SEG* XI 191–2.

[34] Stillwell, 1933: 605–10. [35] Carpenter, 1938: 58–61; Carpenter, 1963.

[36] *LSAG* 120–1, pl. 18 (1a–b). Also see Arena, 1967: 65–6; Coldstream, 1968: 104; Heubeck, 1979: 121–2 (4a–d).

uncertainty surrounding the dating of most archaic inscriptions by putting the sherds at 720(?)–550(?).[37] Two of the sherds come from a single pot that the potter, apparently, placed back on the wheel after firing. Pushing a graver against the spinning vessel, he separated it into zones, then filled in the zones with names, working from the bottom up. Each name is divided by a row of vertical dots similar to the "colons" on the Cup of Nestor (below, 162ff.). Perhaps the pot listed the members of a club, or it was the gift by a symposiastic collegium to a member. The potter's expert incision creates a sort of decoration. Here is Boegehold's transliteration of the two large fragments read together, with his restorations:[38]

No. 21 (after Stillwell *et al.*, 1984: pl. 123 (1) 143)

→
[---].[---]
[---M]ε̣λαντας ⋮ Χαιρια[ς---]
[---N]ικεας ⋮ Ανγαριος[---]
[---Ηερμ]αυϝιος ⋮ Σοκλες ⋮ [Αριστο]τελες[---]
[---]Α̣λ̣ιδας ⋮ Αμυντας[⋮ Δεξ]ιλος ⋮ Χ[---]
[---]τοι Μαλεϙο ⋮ Καιν[ιος ⋮] Χαιρια[---]

Melantas, Khairias
Nikeas, Angarios
Hermauwios, Sokles, Aristoteles
Alidas, Amyntas, Dexilos
Maleqo, Kainios, Khairias

[37] Boegehold, 1974: 31, though in his contribution to Stillwell *et al.* (1984: 40–1, 358 9) Boegehold seems to concede a date of 720(?)–650 B.C.(?).

[38] Stillwell *et al.*, 1984: 359, 1(b).

A third chip, from another pot, reads:[39]

No. 22 (after Stillwell *et al.*, 1984: pl. 123 (18) 142)

→[---]λεοϙ[---]

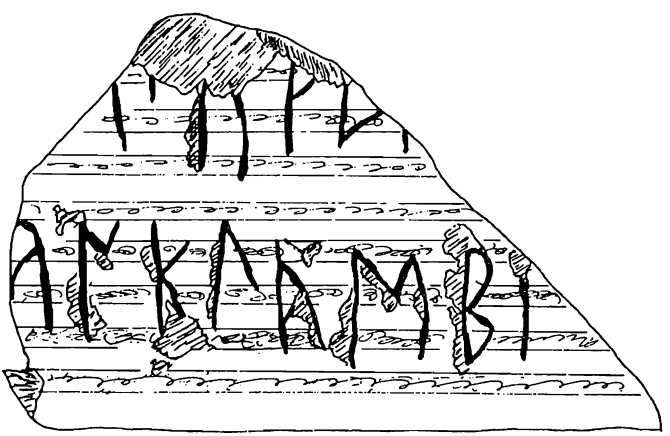
Perhaps

προκ]λεοϙ

or the like. Note the odd Corinthian "B" for *epsilon* and *san* for [s].

From Syracuse comes a sherd from a clay box decorated with parallel red lines. It was found in 1913 in the deepest archaeological level of the sanctuary of Athena, assigned to the beginning of the seventh century.[40] The sherd has two partial names written from left to right:

No. 23 (after *EG* I, fig. 172)



[39] Stillwell, 1933: 607; *LSAG* 120–1; Boegehold in Stillwell, 1984: 361, pl. 123 (18) 142. See *SEG* XI 193.

[40] Guarducci, 1959–60: 249–54, fig. 1; also, *EG* I 341–2; Heubeck, 1979: 124 (8).

→
[---]παρβ[---]
[---Δ]ανκλασε[---]

Guarducci wondered whether -παρβ- may be part of a proper name such as Παρβάλλων and sees in Δ]ανκλας the Doric genitive of the name of the Euboian colony of Zankle, on the straits of Messina ("Parballon of Zankle," an Ionian outsider in Doric Syracuse?).

The early inscribed sherds published by Blegen in 1934 from the sanctuary to Zeus atop Mt Hymettos contain several complete names:[41]

No. 24 (after Blegen, 1934: fig. 7)

→γαης
of Gaia
and

No. 25 (after Blegen, 1934: fig. 3 (3))

[41] Blegen, 1934, published twenty-two of the inscribed sherds. He accepted a date of the mid-eighth century, but Young (1939: 227, especially note 5), refining a suggestion of Rhys Carpenter, showed how the wares were Subgeometric, i.e., that they postdate *c.* 700 B.C. See Langdon, 1976: 9–10.

←[---]τλεσιαϙ[---]

Tlesias

and traces of other names, such as

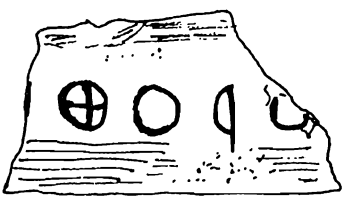
No. 26 (after Blegen, 1934: fig. 4 (8))

←αυτομε[δων?---]

Automedon

and

No. 27 (after Blegen, 1934: fig. 10 (22))



←[---Δ?]οροθ[εος?---]

Dorotheos, *vel sim.*

and

No. 28 (after Blegen, 1934: fig. 3 (6))

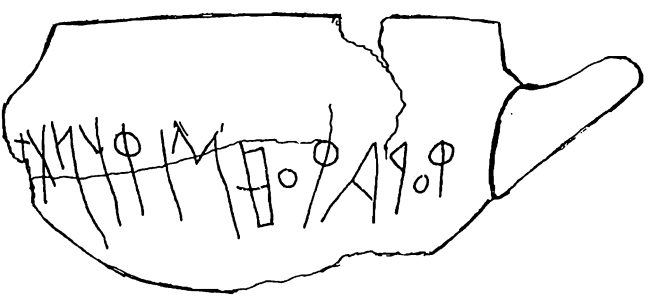
←Ευθ[---]

Proprietary inscriptions

One may imply ownership by simply writing one's name, or may explicitly declare ownership, or credit for manufacture. We have already seen among the Pithekoussan fragments an example of "εμι + a name in the genitive" (Inscription no. 9) and a declaration of manufacture in the pattern of "name + εποιεσε" (Inscription no. 10). We might call these, for convenience, "proprietary inscriptions," because they establish a connection between a man and an object. It is a genre well represented among the surviving fragments of archaic Greek script.

A well-known short graffito, written retrograde on a black kylix from Rhodes, may belong to the late eighth century, therefore the oldest Rhodian inscription:[42]

No. 29 (after *EG* 1, fig. 163)



←
ϙοραϙο ημι ϙυλιχϛ[43]

[42] *IG*² 919. See Blinkenberg, 1941: no. 710; *LSAG* 347, pl. 67 (1); *EG* 1 328–9; Heubeck, 1979: 126 (13).

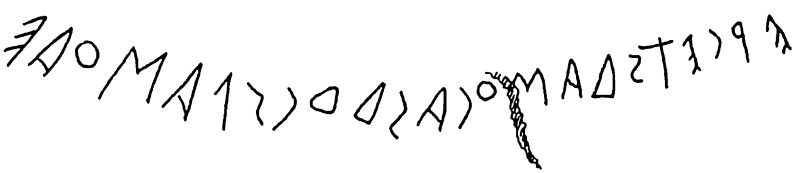
[43] Guarducci and others read the last sign as τ, taking it for the first letter of a patronymic τ[ο?]. But the surviving marks will fit a four-stroked *sigma* and χσ for [ks] is appropriate for archaic orthography (above, 60). Though Rhodes is "red," where one would expect [ks] = χ, [ks] = χσ is attested on another early Rhodian inscription, from *c.* 650–600 (*EG* 1 331–2).

I am the kylix of Korax

i.e. of "Crow" or "Crowman."[44]

A good-sized plain storage jar discovered in Phaistos in 1969 bears the first Cretan inscription confidently placed in the eighth century. The metrical inscription, scratched right to left on the surface before firing, reads:[45]

No. 30 (after Masson, 1976: 169)



←

ερπετιδαμοπαιδοπιλασοδε

i.e.,

– ∪ ∪|– –| – ∪ ∪| – ∪ ∪

Ερπετιδαμο Παιδοπιλας οδε

This [jar is the property] of Erpetidamos, the son of Paidophila.

Note the "open" form of *pei*, the crooked *iōta*, o for ου, and *san* for [s]. The names, which mean "He who leads the people (?)" and "She who loves her child," are never again found.

An inscription written right to left in Corinthian script on a salt cellar found in Selinous, assigned to 700 (?), reports that the salt cellar was given to Myrtikha(?), together with a fillet (no illustration).[46]

(No. 31)

←

ϝοινανθαμεδοκεμ[. .]τιχαικαιταινιαν

i.e.,

[44] A Korax of Syracuse is said, with Tisias, to have been the first teacher of rhetoric (*OCD* s.v.). A Naxian called Korax is said to have killed Arkhilokhos (Plut. *Mor.* 560 E; Dio Chrys. 33.12, von Arnim 1 300; see Burnett 1983: 19 for the possible origin of this tradition in an animal fable). Korax is also the name of Eumolpus' slave in Petronius' *Satyricon* (117, 140). For the name, cf. O. Masson, 1973–4; *SEG* XXXIV 1299.

[45] Levi, 1969a and 1969b: 390–1, with figs. 5 and 6; Heubeck, 1979: 125 (10). For other suggested translations and the unusual matronymic "Paidophila," the oldest in the epigraphic record (if it is not a masculine -α stem), see O. Masson, 1976; Jeffery–Morpurgo Davies, 1970: 153, note 1.

[46] Pfohl, 1969: 15; Heubeck, 1979: 122 (4d). See *SEG* XIX 614.

ϝοινανθα μ' εδοκε Μ[. .]τιχαι και ταινιαν

Oinantha gave me and a fillet(?) to Myr(?)tikha.

Heubeck takes "Tainia" to be the name of a girl, I suppose a slave girl, and notes that the women's names are attested for hetairai, a social group welcome at the otherwise male symposium.[47] A hedonistic and symposiastic background seems in any event implied by the very names Oinantha, "Wineflower," and Myrtikha: μύρτος, sacred to Dionysos, refers *sensu obsceno* to *pudenda muliebria* (e.g. Aristoph. *Lys.* 1004). A ταίνια was a breast band for young girls (cf. *Anacreont.* 22.13).

A two-handled Geometric cup *c.* 700–675 from Kleonai, the village on the road from Corinth to Argos which sometimes controlled the Nemean games, preserves:[48]

No. 32 (after *LSAG*, pl. 25 (11))

←χος{η}εμι

Note *san* for [s], Corinthian B-shaped *epsilon*, perhaps corrected by ordinary *epsilon*. The inscription seems to be complete, ruling out]χος as a genitive ending. χος, then, should be the same as classical χοῦς, a unit of measure, except a χοῦς was far more than such a cup could hold.[49] Is this a joke – "I hold a whole gallon!"?

A dipinto from Ithaka, first half of the seventh century, painted from left to right around a clay candlestick, gives the name of the object's maker:[50]

No. 33 (after *LSAG*, pl. 45 (2))

[47] Heubeck, *ibid.* For the sexual overtones to the inscription, cf. Bellamy, 1989: 297.

[48] Blegen, 1934: 425–6, fig. 13; *LSAG* 149, pl. 25 (11). See *SEG* XI 306.

[49] *LSAG* 149, note 1.

[50] Payne, 1933: 283; Lejeune, 1945: 103–6; *LSAG* 230–1, pl. 45 (2); *EG* I 275–6; Heubeck, 1979: 122 (5b).

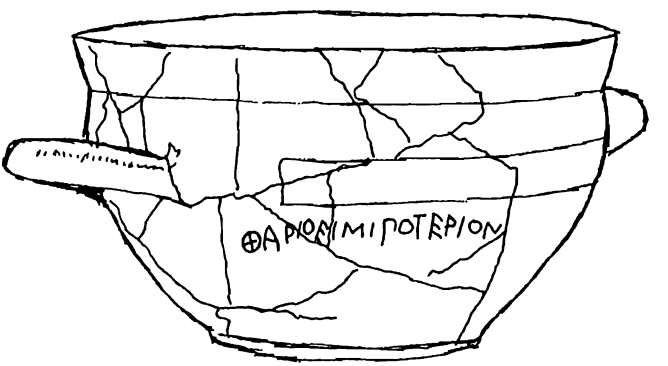
→Καλικλεας ποιασε

Ka<l>likleas made (me).

Note *san* for [s], crooked *iōta*, λ for [ll], and the omission of the aorist augment in ποιασε, perhaps a poeticism. Both Καλικλεας and ποιασε have α for expected η; this is not a poetic form but likely to be an error by the unskilled scribe.

From Athens *c.* 650, written left to right, in dactylic rhythm:[51]

No. 34 (after *EG* I, fig. 29)



→

– ∪∪|– ∪ ∪|– ∪∪

θαριο ειμι ποτεριον

I am the cup of Tharios.

Here is the same word ποτεριον – not found in Homer, who uses δέπας – that we will find in the Cup of Nestor inscription (below, 164).

From Old Smyrna comes a sherd of *c.* 650, with the possibly dactylic inscription:[52]

[51] *LSAG* 69, pl. 1 (4); *EG* I 137.

[52] Roebuck, 1959: 118; J. M. Cook, 1962: 53, fig. 12; Jeffery, 1964: 45 (1); Heubeck, 1979: 126 (12a). Jeffery gives several examples of isolated letters from eighth-century sherds and notes that Smyrna was literate by the late eighth century.

No. 35 (after Jeffery, 1964: pl. 5 (1))

→

– ∪ ∪|– ×

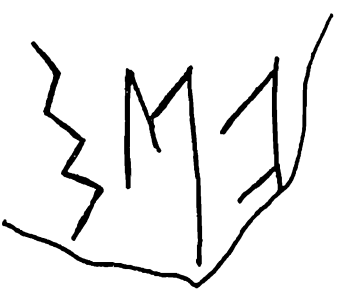
Ιστροκλεης μ' επ̣[οιησε] *or* εχ̣[ραψε]

Istrokles made me (*or* inscribed me).

Note four-barred *epsilon*, the odd six-stroked *sigma*, and the uncontracted nominative, all abnormal for East Ionia, and normal Ionian *ēta* for η.

Somewhat earlier, also from Smyrna, *c.* 700, comes what may be part of a proprietary inscription, if it reads right to left:[53]

No. 36 (after Jeffery, 1964: 40, fig. 2)



←[---]εμ̣ι

The inscription may be Lydian, perhaps

-ẹmṣ

If the final letter is in fact crooked *iōta*, it is a unique instance of the form in Ionic script.

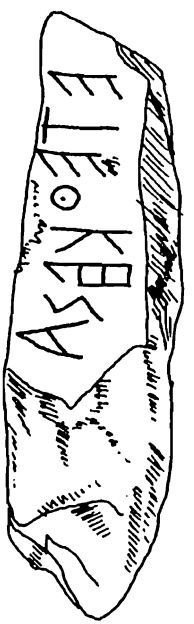
[53] Jeffery, 1964: 40, fig. 2.

The impulse to write one's name on a cup was evidently irresistible to the eighth-century Greek; he also wrote names on tombstones, though surprisingly few survive from the early period.

Tombstones

From Geometric gravestones on the south slope of the high saddle between Mt Mesavouno and Mt Profitis Elias on Thera, where the Doric Therans wrote the names of gods and winds, come many names in a script impossible to date accurately, but perhaps reaching back into our period, such as:[54]

No. 37 (after *EG* I, fig. 180)



←Ετεοκλητα

Note the earliest extant ligature in Greek alphabetic writing, between *lambda* and *ēta*, and crooked *iōta*.

From Corinth, dating to *c.* 700(?), comes a limestone stele[55] inscribed in "false *boustrophedon*," i.e. writing in which "the lines were deliberately

[54] *IG* XII.3 781; *LSAG* 317, 319, pl. 61 (3.ii); *EG* I 351.
[55] *IG* IV 358. See Lolling, 1876; *LSAG* 127, pl. 18 (6).

written so that the letters actually faced in the same direction throughout: that is to say, at the top of the first line (e.g. written upwards from left to right), instead of proceeding down again with reversed letters, the mason would simply turn the line over like a hairpin and continue down again, still from left to right...not the true turn of the ploughing ox, but an ingenious simplification..."[56]

No. 38 (after *LSAG*, pl. 18 (6))

←
Δϝενια τοδε̣[σα
→
μα] τ̣ον ολεσε πο
←
ντος αναι[δες]

This is the tomb of Deinias, whom the shameless sea destroyed.

Homeric αναιδες and the rough scansion of

– x|– ∪ ∪| – ∪ ∪| – ∪ ∪| – ∪ ∪ |– –
Δϝενιὰ τοδε̣ [σαμα] τ̣ον ολεσε ποντος αναι[δες]

suggest an effort at epic hexameter; Deinias does not quite fit the scansion, but names often fit poorly into early verse inscriptions (cf. Inscription no. 39 following). Note *digamma*, *san*, crooked *iōta*, and B-shaped *epsilon*.

Scratched right to left on a rock on the island of Amorgos is one of the earliest Cycladic inscriptions, an epitaph assigned to *c.* 700–650:[57]

[56] *LSAG* 49–50.

[57] *IG* XII.7 422. See Peek, 1955: no. 1413; *LSAG* 293, pl. 56 (15); *EG* I 157.

No. 39 (after *EG* 1, fig. 40)

←

– ∪ ∪|– –| – ∪ ∪|– –| – ∪ ∪|– –

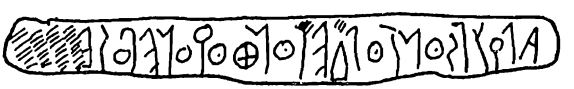
Δηιδαμανι Πυγμας ο πατερ [τ]ονδ' οιϙ[ον ʔετευϝσεν]

To Deidamas his father Pygmas [has set up this] (?)abode.

Note *ēta* for η and straggling *sigma*. The line is a good hexameter if, in the recalcitrant first word, we scan -ηι- as one syllable by synizesis and the dative as long ι.[58]

From Anaphe, the small island east of Thera, comes a quasi-metrical epitaph written right to left *c.* 700–675 B.C.:[59]

No. 40 (after *LSAG*, pl. 62 (26))



←

– ∪ ∪|– –| × –| – ∪ ∪| – –

Αγϙυλιον τονδε τον θοϙον εποιε[– – –]

Ankylion made this seat(?).

Presumably Ankylion has made the tombstone on behalf of the deceased. The line does not scan as it is. Perhaps the inscriber meant to write (taking ι in εποιε as consonantal):

– ∪ ∪|– –| – – –| – ∪ ∪|–∪ ∪

Αγϙυλιον τον θοϙον τονδ' εποιε[σεν– – –]

[58] Or we might roughly scan:

–∪∪|– ∪ X| – ∪ ∪|– –| – ∪ ∪| – ∪

Δηιδαμανι Πυγμας ο πατερ [τ]ονδ' οιϙ[ον ʔετευϝσεν]

Some want to see a vocative Δηιδαμαν and the vertical line taken for *iōta* as a rare word divider (e.g. Peek, 1955: *loc. cit.*; Hansen, 1983: no. 152). If so, the line would scan

–∪∪|– –| – ∪ ∪|– – | – ∪ ∪| – –

Δηιδαμαν Πυγμας ο πατερ [τ]ονδ' οιϙ[ον ʔετευϝσεν]

[59] *IG* XII.3 255; *LSAG* 322, pl. 62 (26).

Dedications

Claims of ownership or credit for manufacture allow one to designate an object's recipient, though dedications as a genre of early Greek writing are very rare.[60] The only probable "short" example from the eighth century B.C. is the earliest of a series of nine inscribed fragmentary bronze Boiotian cauldrons, or *lebetes*. Four were recovered from Boiotia and five from the Athenian acropolis, dedicated there, we assume, by Athenians who won victories in Boiotia. Such cauldrons were customary prizes at funeral games in early Greece. We should compare them to the one Hesiod won in a poetry contest (*Erg.* 654–9):

Then I crossed over to Khalkis for the games of wise-minded Amphidamas; for the sons of the great man had proclaimed and declared many prizes. There I say that I won with my song (ὕμνῳ) and carried off a tripod with handles. This I dedicated (ἀνέθηκα) to the Muses of Helikon, where first they set me on the path of clear *aoidē* (λιγυρῆς ἐπέβησαν ἀοιδῆς).

A fragment of an inscribed cauldron was actually discovered at Helikon, assigned to *c.* 625–620 (and therefore, alas, not Hesiod's!):[61]

[Ηιαρον ε]μι το ΕλιϘον[ιο]

I am dedicated to the Helikonian god

Although the names on the *lebetes* are mostly in the Boiotian dialect, they are written in Khalkidic script. Khalkis, across the Euripos from Boiotia, must be the source of the Boiotian epichoric script. The *lebetes* could have been inscribed by Khalkideans living in Boiotia. These inscriptions should be classed with the Euboian writings from Eretria, Lefkandi, and Pithekoussai. This is the circle of early alphabetic possessors. In *LSAG* Jeffery assigned to the earliest vessels a date of *c.* 700–675 B.C., but on the basis of their typology later placed the earliest examples into the eighth century B.C.[62]

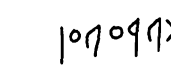
The *lebetes* bore two inscriptions, the first inscribed by the donor, the second by the winner when he dedicated the cauldron. The short formulaic donor inscriptions are of the type, "I am one of the prizes offered at the

[60] A. W. Johnston (1983: 67) explicitly excludes dedications from the very earliest inscriptions, apparently placing the early Boiotian *lebetes* (see just below) at *c.*700. Yet he notes that the fragment θεο from Pithekoussai survives as our earliest dipinto, painted in white on the stand of a locally made krater from the eighth-century "Nestor" tomb. This *may* be a dedication "to the god," if it is not part of a name. [61] *LSAG* 91, pl. 8 (6). [62] Jeffery, 1979; Cf. *LSAG* 91.

games held for [the dead man]"; or "so-and-so gave me as a prize on behalf of [the dead man]." The winner adds beneath this inscription his own formulaic, "so-and-so offered me up as a dedication to [some god]."

On the earliest cauldron, found at Thebes, the donor's inscription reads:[63]

No. 41A (after *LSAG*, pl. 7 (2a))

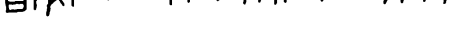
 A.

←επι Εκπροποι

In honor of Ekpropos.

The winner's dedication from the same *lebes* then reads:

No. 41B (after *LSAG*, pl. 7 (2b))

 B.

→

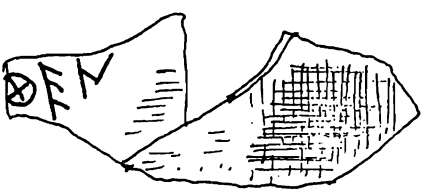
Ηιαρον το Πυθιο ϝισϝοδιϙος ανεθεκε

Isodikos set me up as a votive to [Apollo] Pythios.

Note four-barred *hēta*, "closed" *pei*, *digamma*, three, then four-stroked *sigma*, *qoppa* before o.

Possible traces of dedications appear on the Hymettos sherds from 700 B.C. onwards. For example:[64]

No. 42 (after Blegen, 1934: fig. 8 (16))



→[---ανε?]θεν

...dedicated...

and:[65]

[63] *LSAG* 91, pl. 7 (2a–b). [64] Blegen, 1934: no. 16. [65] Blegen, 1934: no. 12.

No. 43 (after Blegen, 1934: fig. 6 (12))

→[γνα?]θον μ['ανεθεκεν?]

Gnathon dedicated me.

A painted votive plaque found on Aigina, which J. Boardman published in 1954 and assigned to *c.* 720–710, reads from left to right[66]

No. 44 (after *LSAG*, pl. 16 (1))

→ϙονοσεπισ̣τ̣[---]

Jeffery suggests a hexametric restoration:[67]

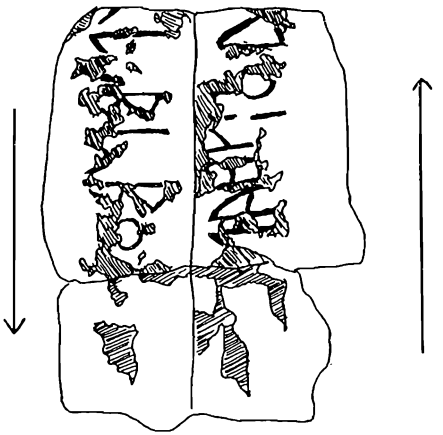
–⏑⏑|–⏑⏑| – ⏑ ⏑|– –|– ⏑ ⏑|–×
[---Λυ?]σονος Επιστ[αμον ανεθεκε?]

Epistamon, son of Luson, dedicated...

From Perakhora, northwest of Corinth, on a limestone stela that once held a *drachma* of spits, later reused as a curbstone for an altar in the temple of Hera Limenia, comes part of a dedication *c.* 650 B.C.(?) in deeply cut letters several inches high:[68]

[66] Boardman, 1954: 183–6, pl. 16; *LSAG* 110, pl. 16 (1); Page, 1964: 122; *EG* 1 196–7; Heubeck, 1979: 121 (3). [67] *LSAG* 403. [68] *LSAG* 122–4, pl. 18 (7).

No. 45 (after *LSAG*, pl. 18 (7))



← →
[---ε]υμενεοι | ϙαhυποδ[---]

Perhaps metrical

-- ∪∪|– ∪ ∪ |– –
[---ε]υμενεοισ(α) υποδ[εξαι[69]

...receive in kindness...

Note Corinthian B-shaped *epsilon*, *hēta* for [h].

Fragmentary inscriptions, some hexametric

From Ithaka survives a piece of writing from the end of the eighth or beginning of the seventh century. Written from left to right, the fragmentary hexameters run in a spiral around a Geometric jug of local manufacture:[70]

[69] Jeffery (*LSAG* 124) suggests a restoration, *exempli gratia*:
[–∪ ∪– παιδες με ανεθεν· τυ δε ποτνια hερα]
– ∪∪|– ∪ ∪|– ∪ | ∪ ∪ ∪|– ∪ ∪|– ×
[ε]ὐμενεοι σ(α) hυποδ[εξαι ∪– τοδ(ε) αμενφες αγαλμα]

[The children (of so-and-so) have set me up. And so do you, Lady Hera,] favorably receive [this unblemished offering.]

[70] *LSAG* 230, pl. 45 (1); *EG* I 274–5. For this important inscription see also Robertson, 1948: 81–2, 106, 112, pl. 34, no. 490; Webster, 1960: 254; Notopoulos, 1960: 195, note 67; Page, 1964: 122.

No. 46 (after *EG* 1, fig. 125)

→

(1) [---]μ̣αλιστα ϝον[---]
(2)]π̣[
(3) [--ξ]ε̣νϝοστε φιλος [και πιστο]ς̣ εταιρ̣ος[---]
(4) [---φ?]ιλ'(α) εν π̣[*c.* 14]οι τ'εν ατ[---]
(5) [---]χορ̣[---]
(6) [---]οτ[---]

(1) ...very much whom...
(2) ...–*p*–...
(3) ...a guest and a friend and a trusted companion...
(4) ...beloved in...and those who in...

(5) ...*–khor–*...
(6) ...*–ot–*...

Note *san*, *hēta* for [h], and "red" *khei* (ψ = [kh]). The likely restoration of the Homeric formula πιστὸν ἑταῖρον (e.g. *Il.* 15.331)[71] leaves no doubt that the lines were originally hexameter verses. Perhaps the inscribed oinochoe figured in a gift-exchange, to judge from the reference to *xenos*.

From Attica comes the oldest Greek stone "inscription," on a small slate-like rock found on the Athenian acropolis, written *boustrophedon* in tall spidery letters. The writing is probably from the late eighth century:[72]

No. 47 (after *LSAG*, pl. 1 (2))

←
– ∪∪ ¦–
[–––]ενκεκαλ̣[υπται? υμμένη?–––]
→
– ∪∪¦–∪∪
[–––α]νφτοεροισ̣ινε[–––]

Note legged *rhō* and wiggly *sigma* (if it is *sigma*). It is hard to be sure about the reading α]νφτοεροισινε. The unusual *sigma* and the last *iōta* are

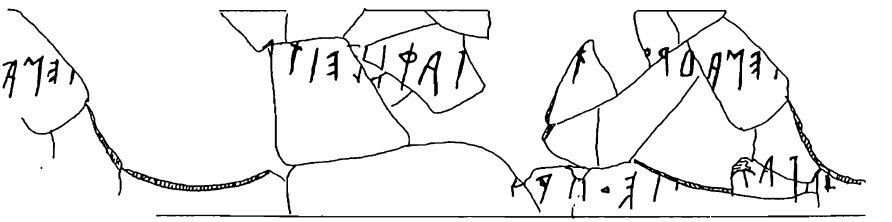
[71] Cf. also Theognis 209, 332.

[72] *IG* 1^2 484. See Raubitschek-Jeffery, 1949: 310; *LSAG* 69–70, pl. 1 (2); Heubeck, 1979: 119 (1a). The stone is on permanent display in the Epigraphic Museum in Athens.

fainter than the other letters and were, perhaps, written in afterwards.[73] Both lines are compatible with dactylic hexameters.[74]

On the generally badly broken Hymettos sherds these fragments survive, incised right to left on a small cup from the early seventh century:[75]

No. 48 (after Blegen, 1934: fig. 2)



←
[---]ϝεμαδρο[---]α̣[---]ταφιλειτε̣[---]τ̣ε
[---]α̣ταχ[---]ε αρα[---]

The fragment may be hexametric. All we can be sure of is that the first line had an amorous theme, perhaps something like

$$\breve{\cup}|- \quad \breve{\cup} \quad \breve{\cup}|- \times$$

[---Νικ]εμα<ν>δρο[ς μ]α̣[λισ]τα φιλει τε

...Nik?]emandros very much, and he loves...

[73] Jeffery suggests an original ανφοτεροιν (*LSAG* 69, note 10). S. V. Tracy, noting that the *phei*, the two *omicrons*, and the *sigma* may have been written in later, suggests that the original reading could have been]ντερινε[(personal communication).

[74] Jeffery compares ενκεκαλ[υπται? to two lines in the Homeric *Hymn to Demeter* (*LSAG* 69, note 10):

κυάνεον δὲ κάλυμμα κατ' ἀμφοτέρων βάλετ' ὤμων (42)

she cast down her dark cloak from her shoulders

and

[ἡ δὲ] στεῖχε κατὰ κρῆθεν κεκαλυμμένη (182)

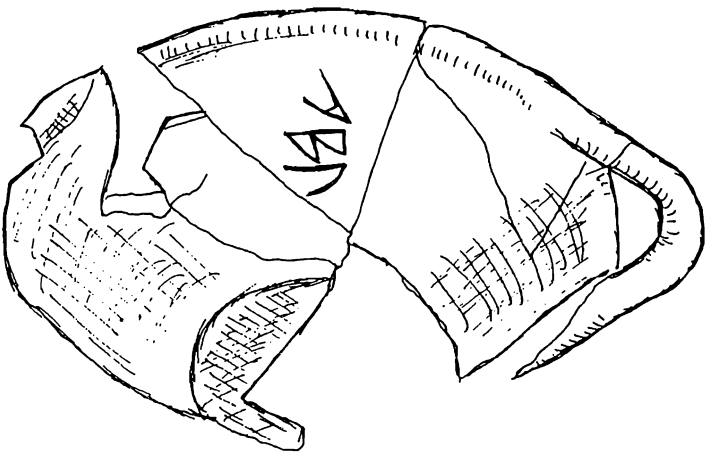
and she came behind, darkened in her heart...

[75] Blegen, 1934: no. 2; *LSAG* pl. 1 (3a); Heubeck, 1979: 120 (1c).

Abecedaria[76]

An important type among the few surviving early archaic inscriptions is the abecedarium, the key to the system. Among the Hymettos graffiti we find on the side of a nearly complete shallow bowl:[77]

No. 49 (after Blegen, 1934: fig. 5 (10))



→α β γ

Another Hymettos sherd appears to begin the abecedarium with the letters κ λ:[78]

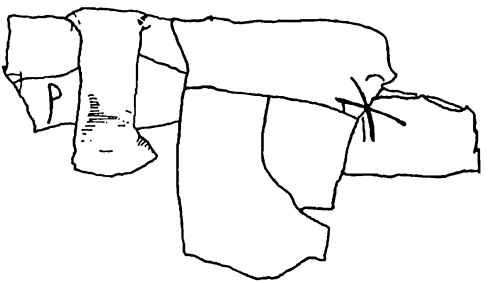
No. 50A (after Blegen, 1934: fig. 6 (13))

A

→κλ[---]

[76] For the topic, cf. Lejeune, 1983.
[77] Blegen, 1934: no. 10.
[78] Blegen, 1934: nos. 13, 14.

No. 50B (after Blegen, 1934: fig. 6 (14))



B

Another part from the same cup (no. 50B) seems to end the series with *rho*; a stray *khei*(?) is also inscribed.

Two other early Hymettos sherds, *c.* 700–765, bear portions of abecedaria:[79]

No. 51 (after Jeffery, 1982: fig. 1a)

←α̣β̣γε̣[---](upper)
←αβγδεζ̣[---](lower)

and

No. 52 (after Jeffery, 1982: fig. 1b)

←[---]κ̣λμνο̣[---]

[79] Langdon, 1976: 17–18; cf. Jeffery, 1982: 828–30, figs. 1a, 1b.

An abortive abecedarium, perhaps of the early seventh century, survives, oddly, on a loom weight found in the Athenian agora:[80]

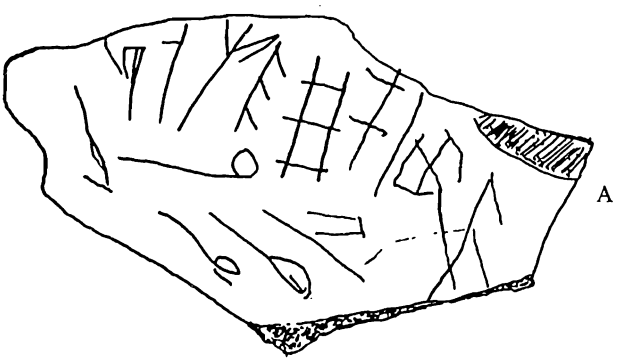
No. 53 (after Brann, 1961: fig. 1)

←→
αβγδ𐤄𐤄𐤄𐤄𐤄 . . | ντ𐤄𐤄

The scribbler knew his way to *delta*, amused himself with five or six strokes, then spun the weight 180 degrees and wrote *ντ* and a couple of strokes.

On both sides of a black-on-red sherd from Kalymnos someone has written pieces of an abecedaric series, perhaps:[81]

No. 54A (after Segre, 1952: pl. 125, no. 245b)



→ψ𐤄ψεηζλθ|𐤄οπ𐤄|𐤄𐤄𐤄

[80] Brann, 1961: 146, fig. 1. I follow M. Lang's reading, 1976: 7, pl. A (1). See *SEG* XIX 46.

[81] Segre, 1952: 217, nos. 245a–b, pl. 125: *LSAG* 354, pl. 69 (43). I have verified the reading from autopsy.

No. 54B (after Segre, 1952: pl. 125, no. 245a)

B

→η(?)χ|πη(?)οψε|ψη

Some of these may be doodles (or Carian letters?).

Seven or eight early abecedaria come from northern Etruria, the earliest and best known of which was inscribed *c.* 700–650 along the top of a miniature wax-covered writing tablet discovered in a grave at Marsigliana d'Albegna.[82]

No. 55 (after Heubeck, 1979: fig. 56)

←

αβγδεϝζΗθικλμνξοπΜϘρστυχφψ

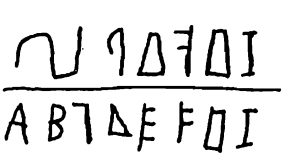
[82] Buonamici, 1932: 101–3, 134–8, pl. 1 (1); *LSAG* 236–8, pl. 48 (18); *EG* 1 228–9. See also Heubeck, 1979: 143–5 for discussion and extensive additional bibliography.

The Etruscans received their abecedarium directly from the Euboian Greeks from Pithekoussai who had founded Cumae.[83] Notable, therefore, is *san*, never used in Euboian inscriptions, but frozen in the series. Note the "red" order of the supplemental letters, five-stroked *mu*, and boxed-in ξ, a form not found outside the Etruscan abecedaria.[84]

The find is interesting otherwise in light of Homer's reference, in his tale of Bellerophon, to a πίναξ, a "folded tablet," on which were engraved the σήματα λύγρα, "baneful signs," required by the folktale motif of the fateful letter (*Il.* 6.153–97; see below, 197ff.).[85] The adapter could have received his abecedarium written on just such a πίναξ.

From the base of a conical Protocorinthian oinochoe from Cumae, *c.* 700–675(?), come two partial abecedaria scratched one above the other and separated by a line:[86]

No. 56 (after *LSAG*, pl. 18 (2))



→

βγδϝ⊦(?)ζ

αβγδεϝ⊦(?)ζ

In the top partial series, written in Corinthian script recognizable from twisted *bēta*, the ignorant writer has made the letters as if the direction of writing were from right to left, although he was writing from left to right. He has omitted *alpha* and *epsilon*. The delta is narrow and flat-topped. The fragmentary lower series is in the Cumaean, i.e. Euboian, script (with *gamma* turned backwards). Perhaps a resident Cumaean first scratched the lower line to show his skill, and a semi-literate visiting Corinthian wrote the upper line, beginning with the twisted *bēta* because it was the difference between the *bētas* that he wished to show.

[83] This view, now generally accepted, was suggested by A. Kirchhoff (1887: 127–38), and has more recently received the support of Jeffery (*LSAG* 236) and Guarducci (*EG* 1 228–9).

[84] The form also appears on the Würzburg Tablet (above, Chapter 1, note 83).

[85] For the Eastern origin of "folding tablets," see Wiseman, 1955; Bossert, 1958; Burkert, 1984: 32–3.

[86] Gàbrici, 1913: 231; Lejeune, 1945: 102; *LSAG* 116–17, pl. 18 (2); Heubeck, 1979: 122 (4c). Above the abecedaria is an inscription of unknown meaning – perhaps, Jeffery thinks, the name of the vase's Etruscan owner.

An early example of *ōmega* appears in an abecedarium of *c.* 660 B.C., the oldest abecedarium from East Greece. It is inscribed on a votive cup found in the Samian Heraion:[87]

No. 57 (after *EG* 1, fig. 119)

←αβγδεϝζ[η]θικλμ[ν]ξοπϙρ[σ]τυφχψω

Before giving it to the goddess, the inscriber made his modest vessel precious by writing on it his ABCs. The series is precious epigraphically, apart from the early *ōmega*, because of the *digamma*, otherwise unattested for East Greek inscriptions (except in the "Milesian" numeral system where it stands for the number "6").[88]

So much for the "short" Greek inscriptions. Completeness in such a catalogue is, of course, not possible. Apart from the information being scattered in many publications, serious disagreements exist about the dating of most archaic inscriptions. Small and broken sherds of common ware are difficult to date, and stratigraphic records are only occasionally available. While art-historical data can be useful, such data leave a wide range of uncertainty. Dating from letter style can never be close and to some extent is circular – this epigraphic style looks early, therefore this inscription is early. Fifty-five or so "short" inscriptions in the 150 years

[87] Walter–Vierneisel, 1959: 23–7, fig. 3, pl. 57; *EG* 1 265–6. But it is not the earliest *ōmega*, if Guarducci is right (1964: 132, pl. 40 (4); *EG* 1 159–60) in assigning to *c.* 700 a Parian sherd that has the letters

←

[- - -]νγεδει[- - -]

written at right angles to

→

[- - -]ηγω

[88] The *digamma* also appears in another somewhat later Samian inscription, perhaps as early as mid-seventh century: Diehl, 1964: fig. 19.

between the adaptation and *c.* 650, about five generations of men, may appear a small number on which to base conclusions, but it is a good selection. It is not likely that new finds will overturn cautious inference. Before drawing our conclusions, however, let us turn to the "long" inscriptions that survive from the same period.

II. "LONG" GREEK INSCRIPTIONS FROM THE BEGINNING TO 650 B.C.

The Dipylon oinochoe inscription: its origin and nature

The most famous of early Greek inscriptions, and still the oldest of more than a few letters, is the one hexameter and eleven additional signs scratched from right to left along the shoulder of an Attic Geometric jug, the so-called Dipylon oinochoe.[89] This celebrated pot was found in 1871 northeast of the Dipylon Gate, beside the important ancient road which led to the Academy and Hippios Kolonos. The road was lined with grave monuments from the Geometric period onwards. The pot is presumed to come from a grave, and to have been buried as a personal possession.

The modest, pleasing nine-inch high oinochoe (15 × 12 cm) is decorated on the body with concentric lines of black slip interrupted by a broader saw-toothed design near the shoulder. A solid black slip covers the vase above the shoulder except for a decorated panel, bordered by zigzags, beneath the spout.[90] The pot, variously dated since its discovery,[91] is now securely placed to *c.* 740–730, a product of the Dipylon Master.[92]

The reading

The graffito has been incised into the solid black ground above the shoulder by means of an extremely sharp instrument. The text begins just to the left of the handle and continues leftward around the vase. The

[89] *IG* I^2 919, *IG* I Suppl. 492a; *DGE* 383 (1); *editio princeps* is Koumanoudes, 1880: add. to p. 50. For reading and history of the epigraphic interpretation, see Powell, 1988. Other select bibliography: Bannier, 1918: col. 449–56; *LSAG* 15–16, 68, 76; Guarducci, 1964; *EG* I 135–6; Guarducci, 1978: 207–38; Nieto, 1970; Langdon, 1975; Annibaldis-Vox, 1976; Gallavotti, 1976; Hansen, 1983: no. 432; cf. *SEG* XXX 46.

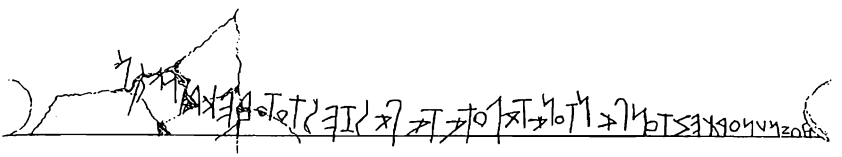
[90] For photographs, see Kirchner-Klaffenbach, 1948: pl. 1, no. 1; *LSAG* pl. 1 (1); Powell, 1988: pl. 1; color photo in Ragghianti, 1979: 59.

[91] For a review of early dating of the pot, Friedländer-Hoffleit, 1948: 54–5; Pfohl, 1968: xxvi–xxvii.

[92] J. M. Davison, 1961: 73, no. 3; Coldstream, 1968: 32, no. 36, and 358–9. For the work of the Dipylon Master, the inventor of the Late Geometric style, who worked in the Kerameikos just outside the Dipylon Gate in Athens, see Coldstream, 1977: 109–14.

division between the solid black and the design of concentric circles serves as a ground line until the writing strays upwards towards the end and stops some distance from the other side of the handle. From the moment of initial publication, problems of great difficulty have attended the reading of the letters towards the end of the inscription, which are more scraggly and ill-made than those toward the beginning. Breaks in the pot in the area of these letters compound the difficulty. I have elsewhere argued that the correct reading should be:[93]

No. 58 (drawn from autopsy)



←

Ϸοσνυνορχεστονπαντοναταλοτατα παιζειτοτοδεκ{μ}μ{ν?}ν

i.e., a perfect hexameter:

– – ⏑|– – ⏑|– –⏑| – ⏑ ⏑|– ⏑ ⏑|– –

Ϸοσ νυν ορχεστον παντον αταλοτατα παιζει

Whoever of all the dancers now dances most friskily...

then the beginning of a second hexameter:

– ⏑ ⏑

το [=του] τοδε [sc. pot]...

of him this –

then an incompetent snippet from an abecedarium:

κ{μ}μ{ν}ν

Epigraphically, the inscription is probably unique in containing sidelong *alpha*, similar to its Phoenician model except that the Phoenician sign pointed in the opposite direction.[94] Crooked *iōta* is not otherwise

[93] Powell, 1988: 66–75.

[94] For the alleged sidelong *alpha* on a Pithekoussan sherd, see inscription no. 4. The two examples of tilted *alpha* on the Hymettos sherds (Langdon, 1976: nos. 70 and 71) are hardly comparable to the form on the Dipylon oinochoe, and "probably the result of the handwriting style of the inscribers rather than a harkening back to earlier forms such as are preserved on the Dipylon oinochoe... " (Langdon, 1976: 42).

attested in Attic inscriptions and *lambda* hooked at the top is extraordinary.[95] On the basis of these epigraphic anomalies, Jeffery wondered if the inscription were made by someone from outside Athens,[96] a thought encouraged by the complete absence of any attested Attic writing until the earliest Hymettos sherds *c.* 700, nearly forty years later.

The first thirty-five signs up to -τοτοδε- have never been in doubt. -τοτοδε-, beginning a second hexameter and evidently inscribed by a second hand[97] (note the departure from the ground line at -τοτο-), must be read τõ (=τοῦ) τόδε, "of him, this [sc. pot]..."[98] Here the second hexameter seems to be abandoned and a crude attempt made to write a piece of an abecedarium, beginning with *kappa*: after *kappa* an awkwardly drawn *mu*, a false start for another *mu* immediately following; then a botch, where the inscriber lets his tool slip in a long trailing slice, conceivably a false start for the last letter, *nu*.

The composer of the metrical portions of this inscription must have been an oral poet, an *aoidos* such as Homer, Hesiod, and the composers of the Hymns; for the language is Homeric,[99] and singers of Homeric verse were *aoidoi*. The exclusively epic word αταλοτατα[100] appears three times in the Homeric corpus,[101] and, in Homer's description of the Phaiakian dance contest, Odysseus even addresses the king in a line structurally similar to the Dipylon hexameter (*Od.* 8.382):

'Αλκίνοε κρεῖον, πάντων ἀριδείκετε λαῶν

O King Alkinoos, most excellent of all men...

Note in both examples πάντων after the midline caesura followed by a five-syllabled word of superlative meaning (αταλοτατα, ἀριδείκετε); in

[95] Though not unique: Langdon, 1976: 43; Guarducci, 1964: 136. [96] *LSAG* 15–16.

[97] Jeffery's theory: *LSAG* 68, repeated in *CAH* III².1 828.

[98] -τοτοδε- = τοῦτο δέ is evidently ruled out because forms of οὗτος are always written with ου in extant archaic inscriptions. F. Hiller von Gaertringen, referring in *IG* I² 919 to Meisterhans–Schwyzer, 1900: 63, note 538, observes that no inscription before 420 B.C. (cf. *IG* I² 247 = *IG* I³ 308 (415/14)) has o for ου in a form of οὗτος. See Lejeune, 1979; Threatte, 1980: 350–5. [99] Cf. Watkins, 1976a: 437–8.

[100] Leumann, 1927. According to Leumann (*ibid.* and 1950: 139–41) ἀταλός originated through a false division of ἀταλαφρονέων, really the privative of ταλαφρονέων, "wretched." If so, this development is complete at the beginning of the literate tradition (cf. West, 1966: *ad* 989; Chantraine, 1968–80: s.v.).

[101] In *Il.* 18.567, where Homer describes young men and women bringing in the fruit of the vine: παρθενικαὶ δὲ καὶ ἠῖθεοι ἀταλὰ φρονέοντες, "maidens and youths in childish glee"; in *Il.* 20.222, where King Erikhthonios has 3,000 mares πώλοισιν ἀγαλλόμεναι ἀταλῇσι, "rejoicing in their frisky foals"; and in *Od.* 11.39 where παρθενικαί τ' ἀταλαί, "lithe maids," gather at the pit of blood in the land of the Kimmerians. The same formulaic diction is also found in Hesiod, *Theog.* 989, telling of the seizure of Phaethon by Aphrodite: παῖδ' ἀταλὰ φρονέοντα φιλομμειδὴς 'Αφροδίτη | ὧρτ' ἀνερειψαμένη, "laughter-loving Aphrodite seized and caught up the light-hearted youth."

each example a two-syllabled word occupies the last foot (παιζει, λαῶν).[102]

Homer, usually taken to be an eighth-century poet and therefore near contemporary of the composer of the Dipylon vase inscription, describes in his account of the good life on the island of Skheria the kind of social event he must himself have witnessed.[103] The Odyssean passage may inform us about the social environment from which the Dipylon vase inscription has come. "And ever to us is the banquet dear," boasts Alkinoos (*Od.* 8.248–50), "and the lyre, and dancing, and fresh linen and warm baths, and the couch. So come, you of the Phaiakians who are best in the dance"–

> παίσατε [cf. παιζει of the vase], ὡς χ' ὁ ξεῖνος ἐνίσπῃ οἷσι φίλοισιν
> οἶκαδε νοστήσας, ὅσσον περιγιγνόμεθ' ἄλλων
> ναυτιλίῃ καὶ ποσσὶ καὶ ὀρχηστυῖ [cf. ορχεστον of the vase] καὶ ἀοιδῇ.
> Δημοδόκῳ δέ τις αἶψα κιὼν φόρμιγγα λίγειαν
> οἰσέτω, ἥ που κεῖται ἐν ἡμετέροισι δόμοισιν.

Dance, that the stranger may tell to his own people, once he's returned home, how much we surpass others in seamanship and in the foot race and in dancing and in *aoidē* [oral hexametric song]. So let someone go and fetch for Demodokos the clear-toned lyre, which is stored somewhere in our halls. (*Od.* 8.251–5)

Seamanship, foot race, and dancing – the pride of the good life in the Greek islands. While the herald goes for the lyre, nine chosen men mark out a dancing place. The herald returns and gives the lyre to Demodokos (8.256–62): "And he went into the center, and around him stood boys in the bloom of youth, masters of the dance, and they struck the brilliant place of dancing with their feet; and Odysseus beheld their twinkling feet, and he wondered in his heart (8.262–65)." Demodokos must be standing in the middle of the dancing circle – κί' ἐς μέσον (8.262) – while the boys dance around him. Demodokos plays for the dance: the skills of an eighth-century *aoidos* were not confined to accompanying heroic song.[104] Now the poet takes center stage and sings a hundred-line satiric song, the "Adultery of Ares and Aphrodite" (8.266–366). More dance follows, but this time a sort of tumbling act with ball-throwing and fancy leaps:

Then Alkinoos urged Halios and Laodamas to dance (ὀρχήσασθαι) by themselves, since no one was nearly as good. They took in their hands a ball, a purple one

[102] Cf. Watkins, 1976a: 438.

[103] For the relevance of the Odyssean passage to the Dipylon inscription, see Hommell, 1949.

[104] For the bard as player for the dance, cf. *Od.* 4.17–19, 23.143–5, and perhaps *Il.* 18.604–5. The bard also sings a dirge at Hektor's funeral: *Il.* 24.720–2.

that wise Polybos made for them, and one of them would lean backwards and toss the ball high into the shadowy clouds while the other, leaping up from the earth, easily caught it before his feet again touched the ground. When they had tested their skill throwing the ball straight up, then they danced (ὀρχείσθην) on the bounteous earth while tossing the ball back and forth. All the other youths, standing around the dancing place, clapped their hands in time, and a great din arose. (*Od.* 8.370-80)[105]

Homer must himself have entertained at events like these, where competitive dance was performed to a musical accompaniment played by an *aoidos*, who can also sing a solo song in the midst of the dance exhibition. In the Dipylon vase we may have an artifact from a similar social event, when we consider that an *aoidos* was present there too – the man who composed the Dipylon verses; and there, too, was competitive dance, for which the jug was prize. By "dance" we should probably understand something like the acrobatics performed at the Phaiakian court.[106] As in *Odyssey* 8 the "Adultery of Ares and Aphrodite" is composed by the same man who played for the dancers, so may the fashioner of the Dipylon verses have played for the dance contest in Athens. He sang a couple of lines to announce the prize, and some of his words survive on the pot.

The inscriber

Did the *aoidos* himself inscribe the Dipylon oinochoe? Research into the relation between oral poets and their recorders suggests that oral poets are not interested in the power of writing to preserve their words. The *aoidos* is a professional entertainer whose *timē* comes from the immediate appreciation of a living audience. Inspired by the Muse, the singer recreates his song anew each time when he sits, like Demodokos, before the admiring crowd. We should perhaps take up Jeffery's suggestion that the inscriber was from outside Athens, a visitor – from Euboia? – who amused the Attic provincials with his own skill.[107] He wrote on the pot the first line of the aoidic announcement, no doubt with the dancer as witness. Perhaps the second writer is the dancer himself, who wanted to try his own hand at the art of writing. The second writer laboriously got down τοτοδε- before, realizing the need to learn the *stoikheia*, he began to

[105] Here Odysseus speaks to Alkinoos the line structurally similar to the Dipylon vase inscription: 8.382, see just above.

[106] The "dance" may well have included ball-throwing, to which the verb παίζει refers specifically in the *Odyssey*. Cf. Hommell, 1949.

[107] Jeffery wonders if the inscriber were even from the birthplace (as she thinks) of Greek literacy, Posideion (= Al Mina): *LSAG* 16.

practice his ABCs, for some reason beginning in the middle of the series.[108]

The Cup of Nestor

πὰρ δὲ δέπας περικαλλές, ὃ οἴκοθεν ἦγ' ὁ γεραιός,
χρυσείοις ἥλοισι πεπαρμένον· οὔατα δ' αὐτοῦ
τέσσαρ' ἔσαν, δοιαὶ δὲ πελειάδες ἀμφὶς ἕκαστον
χρύσειαι νεμέθοντο, δύω δ' ὑπὸ πυθμένες ἦσαν.
ἄλλος μὲν μογέων ἀποκινήσασκε τραπέζης
πλεῖον ἐόν, Νέστωρ δ' ὁ γέρων ἀμογητὶ ἄειρεν.

Beside them was a lovely cup, which the old man had brought from home, studded with golden bosses; it had four handles, and around each two golden doves were feeding, and beneath were two supports. Anybody else could scarce have lifted it when it was full from the table, though he tried very hard; but old Nestor could lift it with no trouble at all. (*Il.* 11.632–7)

The shattered cup that bears the inscription "I am Nestor's goblet, a joy to drink from..." was found on the island of Pithekoussai, where we have found some of the earliest Greek writing. According to recent opinion, it is the second oldest complete Greek alphabetic inscription, after the Dipylon oinochoe, or just as old, given the uncertainty of all this. A Late Geometric imported skyphos of southeastern Aegean manufacture, perhaps from Rhodes,[109] it was found in a cremation burial in the necropolis in the Valle di San Montano. Also in the burial were aryballoi of a Protocorinthian globular style datable to the last third of the eighth century, perhaps *c.* 735–720 B.C.[110] The cup (10 × 15 cm) is decorated in black slip with rectangular decorative panels on either side consisting of four geometrically decorated metopal panels bordered at the bottom by a broad band. The horizontal band is decorated with parallel horizontal lines above and below a central horizontal zigzag. Along these parallel lines, and

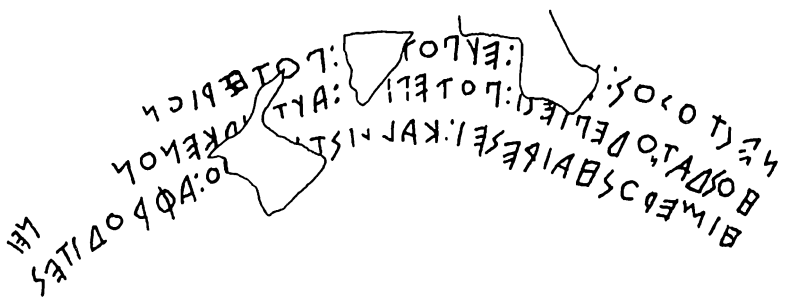
[108] The Latin word *elementum* to designate a letter apparently derives from LMN, the signs which began the second rightward line of early *boustrophedon* abecedaria, the line that the clumsy tiro here attempts to write (my thanks to Sir Ronald Syme for bringing this etymology of *elementum* to my attention; it was first proposed in the mid-nineteenth century by L. F. Heindorf in his edition of Horace's *Satires* and followed by Greenough and others, though rejected by A. Walde and J. B. Hoffman in their *Lateinisches etymologisches Wörterbuch*[3] (Heidelberg 1938–54: 398): see Gordon, 1973: 39). See Powell, 1988: 78–82, for an unraveling of the old puzzle of the Dipylon jug inscription.

[109] Hiller, 1976: 28. Photographs in Buchner–Russo, 1955: pls. 1–4; *LSAG* pl. 47 (1); *EG* I 226.

[110] Initial publication in Buchner–Russo, 1955. Additional select bibliography: Page, 1956; Guarducci, 1961; *LSAG* 235–6 (cf. Carpenter, 1963: 83–5); Metzger, 1965; *EG* I 226–7; Rüter–Matthiessen, 1968; Dihle, 1969; Peruzzi, 1973: 24–6; Hansen, 1976; Gallavotti, 1976: 215–17; Watkins, 1976b; Hiller, 1976; Hansen, 1983: no. 455 (who misprints "ca. 535–520" for the correct date). See also Heubeck, 1979: 109–16, with additional bibliography; *SEG* XXVI 1144.

down the center of the zigzag, the inscription has been scratched, as if to accord with the decoration, although all three lines of the inscription begin outside the decorative horizontal band in the black slip near one of the handles. New joins have clarified the transcription since the *editio princeps*. We can now read:[111]

No. 59 (after Rüter–Mathiessen, 1969: fig. 5)



←
Νεστορος : ε̣[ιμ]ι̣ : ευποτ[ον] : ποτ[[ο]]εριον
Ϝος δ'α<ν> τοδεπιεσι : ποτερι[ο] : αυτικα κενον {νε̣ι̣ *or* νϝ}[112]
Ϝιμερος Ϝαιρεσει : καλλιστε̣[φα]ν̣ο : Αφροδιτες

I am the cup of Nestor, a joy to drink from. Whoever drinks this cup, straightway that man the desire of beautiful-crowned Aphrodite will seize.

The writing, in standard Euboian script, is unique among early Greek inscriptions: first, it is written in continuous retrograde, not *boustrophedon*; second, the metrical lines are written separately, not continuously; third, the writer has used the "colon," two vertical dots in a row, a diacritic device, to indicate word-division in the first line, and to indicate phrase division in the second and third lines at the hexametric caesura and where there is diaeresis.[113] The doubled λ in καλλιστεφανο, striking at so early a date, would appear to accord with the inscriber's sensitivity to metrical requirements.

[111] For the reading, Hansen, 1976: 28–33, who gives a catalogue of earlier mistaken restorations; also Heubeck, 1979: 110–12, for a review of the textual problems.

[112] Jeffery speculates that the *nu* plus other marks at the end of the second line are a false start for Νεστορος of the first line (*LSAG* 236). The tiny *nu*, which I have written in beneath *tau* of the second line, not visible in any published photograph, is described by Guarducci, 1970: 52, note 4.

[113] Does this diacritical device descend from Phoenician practice, which customarily used dots as word dividers? If so, the practice must have been generally abandoned by the adapter's early followers.

The social background

Just as the Dipylon oionochoe inscription may issue from a public event like those described by Homer, so may the Cup of Nestor inscription be a product of the symposium of eighth-century Greece: written on a drinking cup, the text alludes to another drinking cup. The symposium was of course a social institution of far-reaching importance in Greek society at all periods, in this case in the "Wild West" of ancient Greece; immense distance from home ordinarily strengthens traditional social behaviour.[114] In the men's club the well-born established and affirmed the alliances so useful in the Greek cults of freedom, poetry, and war. The prominence of pottery as an art form in the archaic period is itself testimony to the importance of the symposium at this time. Homer's many descriptions of feasting in the *Iliad* and in the *Odyssey* are contemporary witness to the communal, usually all male, meal, where "...the smell of fat is, and the lyre resounds, which the gods have made as companion to the feast" (*Od.* 17.270–1), where the *aoidos* sang – of old times, of gods, of moral crisis.[115]

The first line of the Cup of Nestor inscription – "I am the cup of Nestor, a joy to drink from" – is probably prose.[116] The line is a play on the common proprietary formula ειμι + a word for cup + the owner's name in the genitive (cf. Inscriptions nos. 34, 39). The joke is that the clay cup is called Nestor's, the epic hero's, and pretentiously described as ευποτον, a poetic word (though not epic).[117] The composer of the line was not thinking about metrical patterns because he was parodying, in the fashion of literary parody, the convention of writing one's name on a cup: "even old drunkard Nestor wrote his name on his cup, and look, here is Nestor's cup!"

We have no way of knowing whether the owner of the cup was named Nestor.[118] If he was, that is part of the joke. The clay skyphos bears as much resemblance to the elaborate gold masterwork of Homer's Nestor as its owner bears to the great Trojan fighter – except of course that both are heavy drinkers! Homer himself parodied epic exaggeration in his

[114] Cf. O. Murray, 1983: 195–9.

[115] For the symposium as the occasion for the performance of poetry, Trumpf, 1973.

[116] The line is sometimes taken as iambic trimeter (e.g. West, 1982: 40, note 27) scanning –⏑⏑–|⏑–⏑–|⏑–⏑–, though the trochee for an iamb in the first foot would be unprecedented and hiatus after ειμι in the second metron very odd. R. Janko agrees that the line is prose (personal communication).

[117] Cf. ευποτα[[ε]]α of the still earlier Pithekoussan sherd, no. 11.

[118] Epic names of historical persons are extremely unusual in Greece until Hellenistic times, convincing many that the cup's owner could not have been named Nestor. But epic names *are* attested on rare occasions: Dihle, 1969; Hansen, 1976: 33–5.

description of the Cup of Nestor ("Anybody else could scarce have lifted it..."), speaking of the cup as he did of the mighty stones upon the windy plain of Troy which "not two men could bear, such as men are today."[119]

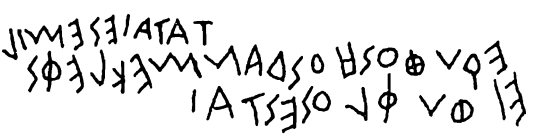
The next two lines are skillful hexameters in traditional epic diction, appropriate to epic parody.[120] We may explain the unique arrangement of the lines written in continuous retrograde if we take the inscription as an artifact from the symposiastic *skolion* where a song was sung to the lyre by one guest after another.[121] The "crooked" order of the singers was determined by passing a myrtle branch. Each singer hoped to cap his predecessor's verse, and each speaker received his own separately written line.[122]

The *magister bibendi*, parodying the proprietary formula, has set the game in his jape about poetic Nestor, the first line. He may himself have been named "Nestor."

The second diner took up the challenge by spinning out a perfect line of poetry, a parody of *another* genre of cup inscription of the type, "Whoever steals this cup, he will go to hell," really a curse formula.

Another example of proprietary formula + curse formula actually survives nearly contemporary with the Cup of Nestor, in a roughly dactylic graffito, *c.* 675–650, scratched in a continuous spiral around a pot from Cumae, just across the bay from Pithekoussai:[123]

No. 60 (after *LSAG*, pl. 47 (3))



←

ταταιεσεμιλ

[119] *Il.* 5.303–4; cf. *Il.* 20.286–7, *Il.* 12.383.

[120] Though not particularly Homeric diction: ευποτος and ποτηριον never occur in Homer; αυτικα κεινον is only roughly paralleled in language by αὐτίκ' ἔπειτα of *Od.* 11.37 (but thematically quite closely by the magical effect to be felt by Odysseus after drinking from Kirke's cup); ἵμερος never appears in the first position, though ἵμερος αἱρεῖ or εἷλε are common (e.g. *Il.* 3.446); καλλιστε[φα]νου Αφροδιτης can be recognized as an allomorph of the formula ἐϋστεφάνου τ' Ἀφροδίτης in *Od.* 8.267. See Rüter–Matthiessen, 1968: 243–8.

[121] Cf. Aristoph. *Fr.* 223; LSJ s.v. Cf. also the riddles in the *Certamen Homeri et Hesiodi*.

[122] I owe this suggestion to remarks of L. H. Jeffery (1979). For the Attic *skolia* preserved in Athenaios, see Bowra, 1961: 373–97.

[123] *IG* XIV 865; *LSAG* 238, pl. 47 (3). For other examples of the pattern declaration of possession in the first person, followed by a conditional statement, followed by a conditional result, see Heubeck, 1979: 111.

εϘυθοσϷοσδανμεκλεφσ
ειθυφλοσεσται

i.e.,

– –|– × ∪| – ∪ ∪ | – – |– –| – ∪ ∪| – –
Ταταιες εμι λεϘυθος· Ϸος δ'αν με κλεφσει θυφλος εσται

I am the lekythos of Tataie. Whoever steals me shall be struck blind.

In the second line of the Cup of Nestor inscription, composed in hexametric meter – "whoever drinks from this cup, straightway that man..." – the second diner has followed the lead of the first by *himself* parodying a genre of cup graffito. He also places the third diner in the position of pronouncing his own doom.

But the third diner has last laugh, *para prosdokian*, by singing "Yes, and his doom will be to savor the sweetness of love."

The joke was so clever that somebody scratched it on the cup. To scratch the cup was no doubt the original intention, in the style of "I am the cup of Crowman." The cup stayed in a symposiast's possession until he died. It was buried with him, a treasured possession from a memorable night, firsthand witness to the ready wit of Euboian society of the eighth century. Quick-witted men-of-affairs, these Euboian far-wanderers evidently knew Homer's poem well. They also knew how to write. In the Cup of Nestor inscription we possess nearly the oldest example of alphabetic writing and, at the same time, Europe's first literary allusion, an extraordinary fact.[124]

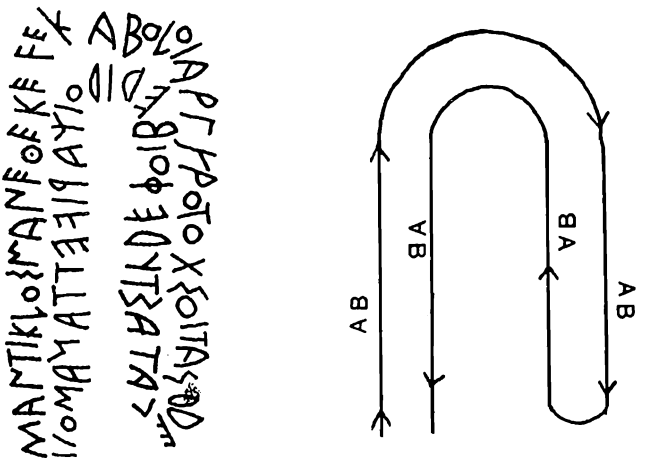
The Mantiklos inscription

From *c.* 700–675 B.C., perhaps originally from the Ismenion at Thebes, now in the Boston Museum of Fine Arts, comes the famous bronze statuette of a naked warrior across whose thighs in a horseshoe pattern two hexameters are incised with chisel and punch from left to right, *boustrophedon*:[125]

[124] It is sometimes argued that, although epic Nestor must be meant, this may not be Homer's Nestor, but the Nestor belonging to the tradition as a whole. However, Homer's strongly individual tone of burlesque in describing Nestor's cup makes it unlikely that "Nestor's cup" was a standard topos which any *aoidos* might draw upon to embellish his narrative. The only cup of Nestor we know anything about, *viz.* Homer's, is plausibly the same one known to the Pithekoussan symposiast.

[125] *LSAG* 90–1, pl. 7 (1); *EG* I 145–6; Heubeck, 1979: 120 (2); Hansen, 1983: no. 326. I follow Hansen's reading, except for his writing χς as ξσ with pleonastic *sigma*; χς was the adapter's way of writing [ks] (above, 60). Additional select bibliography: on the inscription: Fröhner, 1895;

No. 61 (after *EG* 1, fig. 33b)



– –|– ∪ ∪|–∪ ∪|– ∪ ∪|– ∪ ∪|– –
Μαντικλος μ' ανεθεκε ϝεκαβολοι αργυροτοχσοι
– ∪ ∪|– ∪ ∪| –∪ ∪|– ∪ ∪|– ∪ ∪| – –
τας {δ}δε|κατας· τυ δε Φοιβε διδοι χαριϝετταν αμοιβ̣[αν][126]

Mantiklos dedicated me to the far-darter, him of the silver-bow, as a tenth part [of his spoils]. So do you, O Phoibos, grant to me a pleasing gift in return.

Note Euboian *lambda* with hook at the bottom, squiggly *sigma*, circle with a dot for *thēta*, use of *digamma*, red *khei* (ψ = [kh]), and doubled *tau* to indicate metrical lengthening.

Broken off at the knees, the curious statuette is made in a Geometric style of three independent triangles of hips and thighs, torso, and face. Long braided locks frame the face and the elongated neck. The left hand may have held a bow. A helmet is lost. Mantiklos, otherwise unknown, has evidently commissioned a statue to be made of bronze booty that he has taken in battle; his name, associating him with Apollo's "mantic" arts, suggests that he came from a family of seers. The statue is a votive to the god whom Mantiklos held responsible for his success. It is difficult to tell if these early votives represent the offerer or the god to whom the statue

DGE 338; Friedländer–Hoffleit, 1948: 38; Strunk, 1961; on the statue: Pfeiff, 1943, pl. 2, fig. 1 and appendix; Richter, 1960: figs 9–11; Lullies–Hirmer, 1979: fig. 10; Richter, 1974: 186ff.; Hampe–Simon, 1981: 277, figs. 427–8.

[126] Here I follow Hansen in reading αμοιβ̣[αν]; other editors have αμοιϝ[αν].

is given. The offerer's motive is, simply, to please and reward the god by placing within the temenos a pleasing object; Apollo would enjoy the bronze image of a man holding a bow.

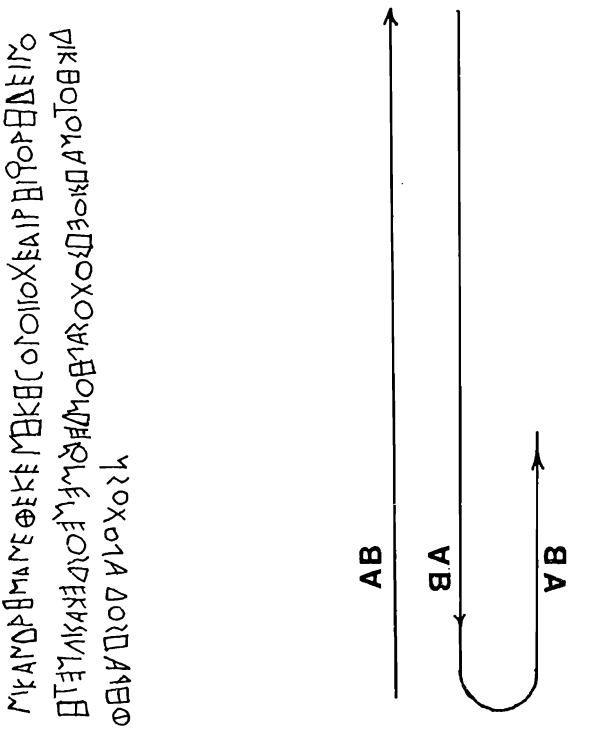
The text is written as if the image itself speaks, just as we have seen cups speaking, but the expression is *aoidic*. ἑκηβόλος and ἀργυρότοξος are common epithets in Homer for Apollo, and the phrase διδοι χαριϝετταν αμοιβαν even appears in *Od.* 3.58 (in Ionic dialect: αὐτὰρ ἔπειτ' ἄλλοισι δίδου χαρίεσσαν ἀμοιβήν).

The Nikandre Inscription

Parallel in style and psychology to the Mantiklos inscription are the three hexameters inscribed *boustrophedon* vertically up and down the left flank of a Daedalic statue made in Naxos *c.* 650 and dedicated on the island of Delos to Artemis:[127]

[127] *IG* XII.5.2, p. xxiv, note 1425b; *LSAG* 291, pl. 55 (2); *EG* I 154–6; Heubeck, 1979: 124–5 (9); Hansen, 1983: no. 403. Cf. *SEG* XIX 507. Additional select bibliography: on the inscription – Homolle, 1879: 3–12; Fränkel, 1879–80: 85–8; Blass, 1891; on the statue – Richter, 1968: 26. The controversy inspired by S. Levin's article, 1970, is worth following; see *contra* Lejeune, 1971; then Levin, 1974. See also Daux, 1973.

No. 62 (after *EG* 1, fig. 38c)



→

– –ˈ – ∪ ∪ˈ–∪ ∪ ˈ– ∪ ∪ˈ–∪∪ˈ– – / – –ˈ – ∪

Νικανδρη μ' ανεθεκεν ⊦<ε>κηβολοι ιοχεαιρηι, Ϙορη Δεινο

←

∪ˈ – –ˈ – ∪∪ˈ – ∪ ∪ˈ– – / – ∪ ∪ˈ– ∪ ∪ˈ– –ˈ–

δικηο το Να⊦σιο, ε⊦σοχος αλην Δεινομενεος δε κασιγνετη,[128]

–ˈ – ∪ ∪ˈ– –

Φ⊦ρα⊦σο δ' αλοχος ν<υν?>

Nikandre dedicated me to the goddess who shoots from afar, the pourer of arrows – she the daughter of Deinodikes the Naxian, best over the others, the sister of Deinomenes, now wife of Phraxos.

A large literature attends the epigraphy of this touching inscription, because in it boxed *hēta* seems to have the value of long [ē] in those cases where η has arisen from an original long ᾱ (Νικανδρη, ⊦<ε>κηβολοι, ιοχεαιρηι, Ϙορη, Δεινοδικηο, αλην, κασιγνετη), while *epsilon* represents long [ē] derived from original Protogreek long [ē] (ανεθεκεν, κασιγνετη).

[128] From here to the end the letters are turned upside down.

The Naxians must have heard a difference in sound. Boxed *hēta* also represents the aspirate as phonetic complement to the aspirated sign *phei* in ΦΗραΗσο, and perhaps some kind of aspirate sound when conjoined with *sigma*, in which cases it is distinguished graphically by a simple rectangle instead of a rectangle with bar across the middle (in ναΗσιο, εΗσοχος, ΦΗραΗσο). Finally, in the spelling Ηκηβολοι *hēta* may have something like the syllabic value [he], for which parallels have been adduced,[129] unless, as I imagine, the scribe carelessly omitted the *epsilon*. Some editors have accepted *mu* as the last letter, but *nu*, from my own examination of the very dim writing on the statue, is in fact correct; a nick on the statue makes *nu* look like *mu*. Apparently the inscriber was copying from a written text and jumped to the second *nu* of νυν. Note semicircular *bēta*.

The Nikandre statue is itself famous in the history of art, the earliest monumental statue in Greece. A monolith standing 1.5 meters high, Nikandre is draped from neck to feet in a close-fit gown, her arms at her side. A hole bored through a clenched left hand must once have held Artemis' bow; a hole partly through her right hand would have carried the arrows. Nikandre's statue, as Mantiklos', portrays the god receiving the dedication. Nikandre must have belonged to an important family to sponsor a votive of such artistic ambition. The statue was probably set up in Delos at the time of her marriage to Phraxos. The mention of her brother could imply that Nikandre's father is dead and that the brother has become head of the household.

The iconic image of Nikandre, like that of Mantiklos, speaks in hexameters couched in traditional epic diction, spinning out proper names in skillful conjunction with epic ἑκηβόλος, ἰοχέαιρα, ἔξοχος, κόρη, and ἄλοχος. ἑκηβόλος and ἰοχέαιρα are Homer's usual epithets for Artemis. We might wonder who composed these lines. Did an *aoidos* stand behind these inscribed lines, as we have guessed was the case with the Dipylon oinochoe? The inscription is truly a graffito, scratched on the skirt. At one point the letters are even turned upside down, and the writing is devoid of the formal balance that informs the statue.

The erastic inscriptions of Thera

A volcanic explosion on the now oddly shaped island of Thera destroyed the Bronze Age town, of which remains have been rediscovered at Akrotiri. Lakonians, who colonized across the southern Aegean as far as Asia Minor, resettled Thera in the Dark Age, though Late Helladic III

[129] Cf. Kretschmer, 1894, 20, no. 19.A.3; 26, no. 39; 97–9.

finds on the island prove a thin continuity of culture. As in the Bronze Age, so in the emerging classical period the Therans held close ties with Crete. They took a script similar to Crete's and dissimilar to that of the neighbouring Ionian islands. From windy Mesavouno in the southeast, overlooking the sea, separated from even loftier mount Profitis Elias by a saddle on the south slopes of which the Therans buried their dead, we have already seen some early "short" alphabetic writings, the names of gods and men (nos. 13–17). From the city itself, scratched on boulders above the festival clearing that later became the Hellenistic ephebic gymnasium, come also a few discursive texts pounded out in the curious Theran *Schlangenschrift* style.[130] The Dorian Therans probably celebrated the rites of Apollo Karneios near where these inscriptions were made – his temple stood nearby, behind and somewhat higher on the ridge – and one may connect these writings with the ephebic society associated with Apollo Karneios.[131]

The surprising confluence of agonistic dance, *poiesis*, hexametric expression, and early alphabetic writing found on the Dipylon oinochoe and on the Cup of Nestor reappears here, but interestingly amplified by explicit reference to homosexual *charis* served by excellence in the dance.[132] There is a *boustrophedon* hexameter (no. 63A) on one boulder:[133]

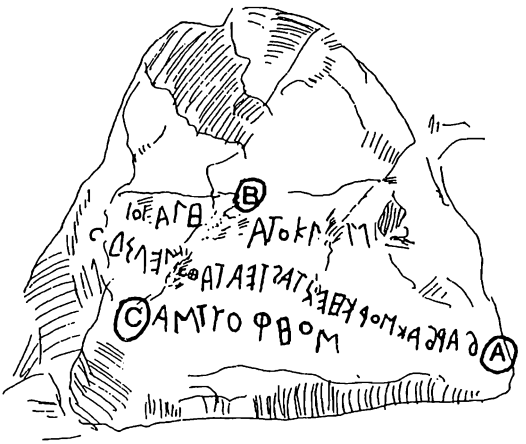
[130] We have a much poorer notion of the date of these writings than we do of the other "long" inscriptions from our period. There is no evidence except from probability based on letter form, a criterion at further risk because of the crudeness of the several-inch high letters, which appear to have been made by scratching or pounding the boulders with a rock. Still, from the evidence of letter form, this writing must be very old, even "as early as the graffiti on the sherds from Hymettos," from *c.* 700 B.C. onwards according to Jeffery (*LSAG* 318–19).

[131] See in general Hiller von Gaertringen, 1897; also, *idem*, *RE* s.v. "Thera."

[132] For a comparable series of pederastic rock inscriptions from the island of Thasos, dating perhaps from the fourth century, see Garlan–Masson, 1982. For Greek homosexuality, Dover, 1978; Buffière, 1980: esp. 57–9. Cf. also Shapiro, 1981. For pederasty among the Dorian Spartans, Cartledge, 1981.

[133] *IG* XII.3 543.

No. 63 (after *IG* XII.3 543)



←
βαρβακσορκϝειταιτεαγαθοϙεδιδο[τε] π
→
ο̣τ̣αν̣ϝ

i.e.

– – ˈ– –ˈ – ∪ ∪ˈ– ∪ ∪ˈ– ∪ ∪ˈ– –
Βαρβακς ορκϝειται τ{ε} αγαθο[ς] εδιδο [τε] ποτανε

Barbax dances well and he's given [me] pleasure (?).

Note *hēta* for the aspirate (ορκϝειται) as well as for long [ē] (ποτανē); *kappa* + *san* for [ks]; and crooked *iōta*. A name ending in [– – –]ατοκλ[α]ς (no. 63B) survives attached to the end of the hexameter. Is this the name of the *erastes*? A second name, Αστυοϙος (no. 63C), is written left to right beneath the hexameter.

A common formula of homosexual praise appears on a boulder written *boustrophedon* from bottom to top, from top to bottom, in hexametric rhythm:[134]

[134] *IG* XII.3 544.

No. 64 (after *IG* XII.3 544)

←

– ∪

θhαρυ

→

∪ ¦– ∪ ∪¦×

μακhας αγαθος[135]

Tharumakhas is swell.[136]

Note *thēta* + *hēta* for [th]; *kappa* + *hēta* for [kh].

The same praise of dance as delight to the lover's eye that we saw in no. 63 appears in another nearby rhythmical Theran graffito, where first one lover praises his *paidika*, writing right to left in the lower portion of the rock (no. 65A):[137]

[135] An isolated *san* (or *mu*?) is written to the left.

[136] For the parallel declaration, "so and so is καλός," "pretty," so common on later vases, see Klein, 1898; Robinson–Fluck, 1937; Talcott, 1936; and many articles by J. D. Beazley in *AJA*, viz. 1941: 493–602; 1950: 310–22; 1954: 187–90; 1957: 58; 1960: 219–225. [137] *IG* XII.3 540.

No. 65 (after *IG* XII.3 540)

←

– ∪ ∪|– ∪ ∪|–

ΛαϘυδιδας αγαθος

Laqydidas is swell.

Note *qoppa* before *upsilon*.

Seemingly, a second *amator*, writing *boustrophedon* above "Laqydidas is swell," goes one better (no. 65B):

←

ε̣υμηλος αριστο

→

ς ορκε̣σ̣τα[ς]

Eumelos is best (αριστος) in the dance.

A third *amator*, perhaps Simias by name, seems to cap the game by exalting his own *puer delicatus*, Krimon, above the rest, writing in *Schlangenschrift* (no. 65C):

→

κριμονπρατιστοσϘονιαλοισιμιανιανετοαρκ[[θ

i.e.,

Κριμον πρατιστος Ϙονιαλοι Σιμιαν ιανετο[138] Αρκ[---]

[138] *IG* gives ο for the last letter, a special form usual for long [ō] in the archaic Theran

which we might jocularly translate

But Krimon, best in the "whanger bop," has warmed the heart of Simias.[139]

To summarize the joke, perhaps the product of a verbal capping game similar to that recorded on the Cup of Nestor inscription, but this time a *laudatio modulata delicatorum*:

The first lover says, "My boy is good."

The second lover says, "My boy is better – the best dancer in town."

The third lover says, "But when it comes to dirty dancing [i.e., the kind that counts], my boy Krimon is the best in the world, and he gives me pleasure too."[140]

As for *puer* Krimon, he is the braggart celebrator of his randiness in two other Theran graffiti. In Inscription no. 66 he begins (at the star) in the left middle of the stone and moves from left to right before doubling around, *boustrophedon*:[141]

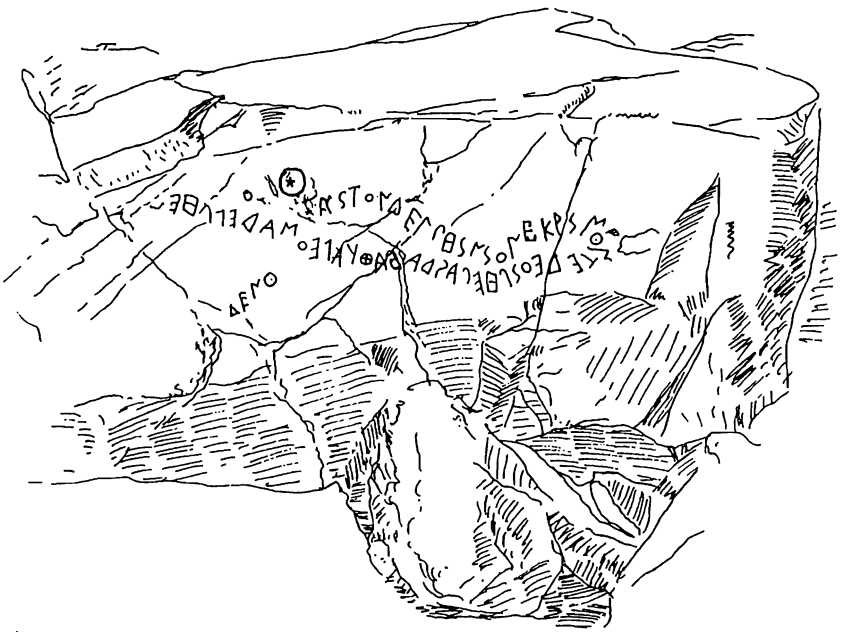
inscriptions, but *omicron* must be meant and the form a third person middle imperfect. Cf. κραδίην ἰαίνεται of Arch. fr. 25.2 (West).

[139] Or, *sensu obsceno*, "warmed the entrails" of Simias. For Φονιαλοι = κονισαλωι and its meaning, Hesych. s.v. κονίσαλος: σκίρτησις σατυρικὴ ἡ τῶν ἐντεταμένων τὰ αἰδοῖα, "a satyr-like leaping about of men with swollen sexual organs." The word, many of whose derivatives refer to wrestling (LSJ s.v. κόνισις, κονιστήριον, κόνιστρα, κονίω etc.), derives from κόνις, "dust." Apparently this athletic manner of dancing had something in common with wrestling.

[140] Perhaps in the capping game we should seek the origin of the common rhetorical organization of a poet's argument in the so-called priamel (Kröhling, 1935; Bundy, 1962: 5–10) such as Sappho's (Lobel–Page, 16): "Some say that most beautiful upon the black earth is a / host of cavalry, / some say a host of foot, / some a host of ships: / but I say that most beautiful is that which one loves."

[141] *IG* XII.3 537; *LSAG* 318, pl. 61 (1a (1)).

No. 66 (after *IG* XII.3 537)



→

ϙαιτονδελπϝινιονε[142]κριμοντεδεοι

←

πϝεπαιδαβαθυκλεοσαδελπϝεϙ[ν]

i.e.,

[τον δεινα] ϙαι τον Δελπϝινιον ε Κριμον τεδε οιπϝε παιδα, Βαθυκλεος αδελπϝεϙ[ν] [δε του δεινος]

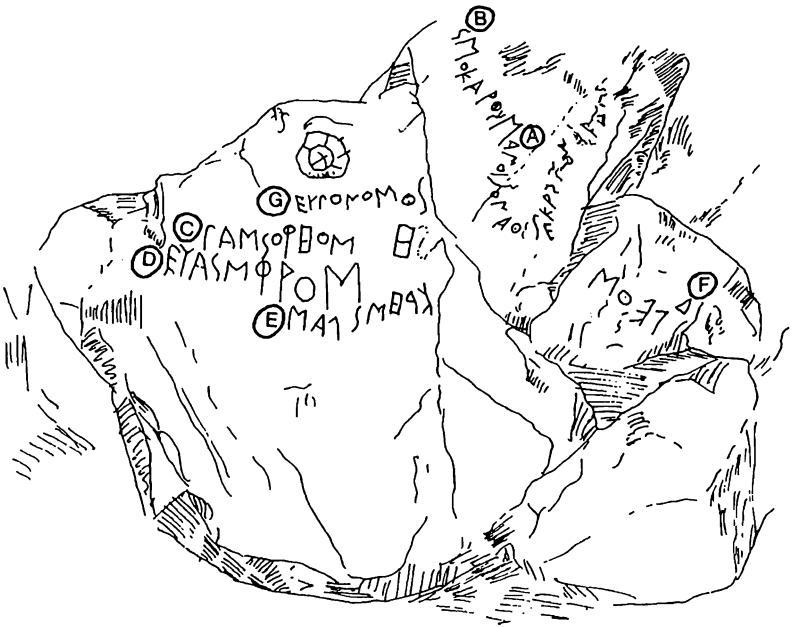
By Apollo, right here did Krimon fuck [so and so], the son of Bathykles, brother [of so and so].

On another rock, reading down, Krimon strikes again (no. 67A):[143]

[142] So Jeffery transcribes the letter but does not say how to take it. *IG* XII.3 537 has ϝ[ο?], the definite article; Wilamowitz (*ad loc.*) suggested ϝ̓ή, the affirmative particle.

[143] *IG* XII.3 538.

No. 67 (after *IG* XII.3 538)



→

αμοṭιοναοιπ < ⊦ > εκριμον[τ]εδε

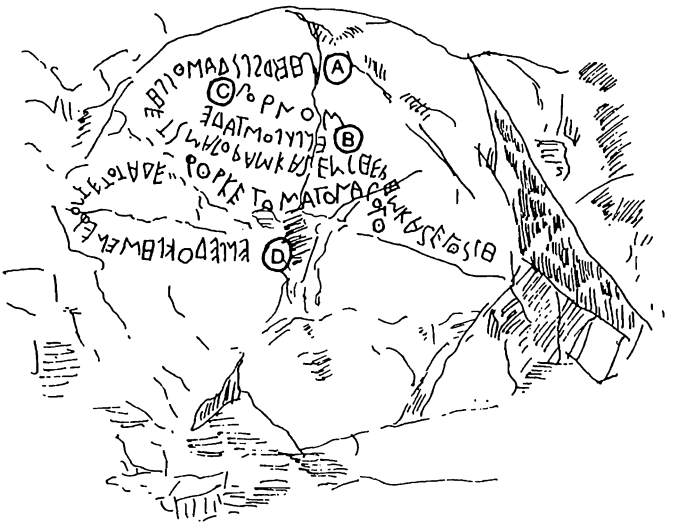
i.e.,

Αμοτιονα οιπ⊦ε Κριμον τεδε

Here Krimon fucked Amotion.

Other names, no doubt of boys from the same social circle, are scratched on the same rock (nos. 67B–E):

No. 68 (after *IG* XII.3 536)



→Ισοκαρθυς (?)
→Πασιοϙhος[144]
→Ευαισϙρος
←Κρεσιλας

and the incomplete (no. 67F)

←[---]δ<ε?>λεος

and another scurrility (no. 67G):

→Ευπονος οι
←πh[ε]

Euponos fucked...

A playful, abusive, agonistic tone is explicitly conjoined with dance and the ability to write on yet another Theran boulder:[145]

(no. 68A)
←
Πhειδιπιδας οιπhε. Τιμαγορας και Ενπhερες και
→
εγ'οιπh[ομες]

[144] Note aspirated velar before [o] written *qoppa* + *hēta*.

[145] *IG* XII.3 536.

(no. 68B)
←Ενπυλος ταδε
(no. 68C)
→πορνος
(no. 68D)
←
– ∪ ∪¦ – ∪ ∪¦– ∪ ∪¦
Ενπεδοκλες ενεϙοπτετο ταδε
→
ϙορκετο μα τον Απολο

The first line (no. 68A), running right to left, begins at the top of the rock, winds along the edge, then turns inward and winds across the center of the stone. It is a declaration of the sexual achievements of Pheidippides, Timagoras, Empheres, and the inscriber. We can translate:

Pheidippides fucked [so-and-so; or as we say intransitively, "got fucked"] Timagoras and Empheres and I – we got fucked too.

Emp(h)ylos, not to be left out, has written in the space enclosed by the first line, just above its lower portion, self-praise for his own achievement (no. 68B):

Emp(h)ylos [did] this [got fucked too? carved these words?]...

He did not finish the sentence. Some companion seems to have written πορνος, "faggot!," above Ενπυλος ταδε (no. 68C).[146]

In the third line, no. 68D, we may get the name of εγω in the first line, no. 68A, one Empedokles, who starts off in the right center of the boulder beneath the lower portion of the first line, winds from right to left to the edge of the rock, then doubles down and back (no. 68D):

Empedokles wrote this. And he danced [ϙορκετο = κ(αὶ) ὠρκεῖτο], by Apollo.

This youthful pederastic boaster not only writes – he dances too![147]

[146] Cf. "Contumeliosum illud πόρνος litterarum indoles prorsus diversa demonstrat Empyli nomini postea esse additum..." *IG* XII.3 536.

[147] The boasting of sexual conquest and the spirit of contumely in the Theran inscriptions are echoed in a nearly contemporary inscription from Hymettos, perhaps *c.* 650–625 B.C. (Blegen, 1934: 11):

Ν¦[ϙο?]δεμος Φ[ιλ]α¦ιδες κατα¦υγον. Λεο[φρα]δες ερ¦[---]

Nikodemos, son of Philaios, is a buttfucker. Leophrades *eri*(?)

Of course this tradition of abuse continues well attested until the end of antiquity (and beyond).

CONCLUSIONS

In the light of the nature of the earliest inscriptions, the suggestion that the alphabet developed specifically or largely in order to record hexameter poetry is gaining in plausibility. (R. Janko)[148]

What surprises one most about the available evidence is the lack of any clear manifestation of Linear B script in areas of "low" literacy. I am thinking here primarily of demonstrably personal uses of writing like those which characterize the extensive literacy made possible by the later Greek alphabet from the very period of its adoption onward... (T. G. Palaima)[149]

The Dipylon oinochoe inscription, scratched into the black slip of the vase, uses the division between black slip and red clay as a ground line. But toward the end the text leaves the ground line and strays high into the black slip. The Cup of Nestor inscription begins outside the design, then is fitted into the wide horizontal band that makes up the bottom of a decorative panel. Mantiklos wished to please the god with his statue and his writing but the craftsman has made no place for writing, though the inscriber has taken advantage of the shape of the calves as a border for his *boustrophedon* hexameters. The Dipylon oinochoe at *c.* 740 B.C. is three generations older than Nikandre at perhaps *c.* 650, yet the inscriber, writing on a majestic, precious statue, places his writing on the statue's side in crudely incised letters that go in both directions and are even turned upside down.

There is something unaesthetic about these early examples of alphabetic writing. They are graffiti. While not a single intelligible graffito survives written in Linear B script, not a single accounting document survives from early alphabetic Greece.[150] Writing in alphabetic Greece is in the hands of men different from those who wrote in the Greek Bronze Age. In the Bronze Age the primary function of writing was to keep track of economic information, for which purpose spoken language with syntax, let alone rhythm, is hardly required; in alphabetic Greece a primary function of writing was to record spoken language. Thus do many of these early writings, extraneously imposed on the objects that preserve them, whether cup or statue, present the object as speaking.

The casual relation between early alphabetic writing and the hard, imperishable objects upon which, alone, examples of it have survived make certain that writing at this time was used principally on a flexible, perishable substance, of which all examples have been lost. This substance

[148] Janko, 1982: 277, note 3. [149] Palaima, 1987: 33. [150] Cf. Palaima, 1987.

is most likely to have been Egyptian papyrus imported into the Greek world through Eastern emporia such as Al Mina where the model for alphabetic writing may have been found. From time to time someone has noticed that it is possible to write on other surfaces, such as a cup, pot, stone, or statue, but these are not natural media. What was being written down on the lost flexible medium?

Let us first establish, from the scattered surviving archaic inscriptions, what was *not* being written down. Unlike in later Greek epigraphy, our survey has turned up not a single public inscription – decree, treaty, or remembrance of common martial exploit; not one public dedication to a god on behalf of a public body; no inventories, catalogues, records of treasure, or building specifications; not one word connected with the doings of one state or collective body with another. The silence about public affairs, about the *polis*, is total; either the *polis* did not exist at this time or the alphabet had not yet come to serve it.

The inscriptions are wholly private, but they do not include private topics frequently attested later in Greece: no legal documents, manumissions of slaves, contracts, mortgages, transfers of land; nothing to do with real property; no *tabellae defixionum*. There is nothing in these alphabetic inscriptions, either, to suggest mercantile interests, public or private: no financial accounts, not even any numbers or evidence that a numerical system existed, until *c.* 600 B.C.[151] The omission of economic documents is especially striking in light of the presumed economic activity of the Euboians in Euboia and Italy, where we find some of our earliest examples of alphabetic writing.

Nothing public and nothing economic. The inscriptions are self-assertive, sometimes jocular, often what is fairly called literary. Let us consider the "short" inscriptions. They contain many personal names and may:

(a) declare ownership (e.g. no. 29: "I am the cup of Crowman"), so protecting the object from theft (no. 60: "I am the lekythos of Tataie. Whoever steals me shall be struck blind");
(b) record a gift (no. 31: "Oinantha gave me and a fillet to Myrtikha);
(c) celebrate the object's maker (e.g. no. 33: "Kallikleas made me");
(d) perpetuate the individual after death (e.g. no. 39: "To Deidamas his father Pygmas set up this abode");
(e) dedicate an object to a god (e.g. no. 24: "of Gaia"; no. 41B: "Isodikos set me up as a votive to Pythios");

[151] Cf. Johnston, 1979: 27–31.

(f) invoke a god (e.g. no. 15: "Zeus");
(g) celebrate the self (e.g. no. 13: "Ananiskles").

There are remarkably few examples of (g), single names written for their own sake; for the parts of names from Hymettos and the Euboian sites could have belonged to proprietary or dedicatory formulas.

Other "short" inscriptions, without names, are:

(h) whole or partial abecedaria (nos. 49–57);
(i) snippets of hexametric verse (nos. 11, 46, 47).

But types a–g can also be hexametrical (e.g. nos. 30, 38, 39, 40, 44, 60).

Though the abecedaria are obviously not attempts to write either poetry or prose, they are not always the same thing. The Marsigliana d'Albegna tablet (no. 55), too small in size to be a real writing tablet, must be a model, an amulet that carried the owner's literacy into the other world. The αβγ from Hymettos (no. 49), or the complete abecedarium from the Samian cup (no. 57), probably vivified and sanctified the votive, a way of thinking appropriate to the early stages of literacy, when the rudiments of writing have in themselves the power to fascinate. But the abecedarium is the secret key of writing, not writing itself.

Let us now turn to the "long" inscriptions. Not surprisingly, the themes of "short" inscriptions are foreshortened versions of what we find in the "long" inscriptions. The Theran obscene graffiti, one of them certainly hexametric (No. 65c: "But Krimon, best in the 'whanger bop'... "), praise athletic skill; the "short" Boiotian dedication on the bronze *lebes* (no. 41) commemorates athletic victory. The "long" hexametric Dipylon oinochoe (no. 58) commemorates athletic prowess, like the "short" Boiotian bronze *lebes* (no. 41), and at the same time, if the last three letters are in fact a snippet from an abecedarium, reflects the spread of literacy. The "short" abecedaria reflect the spread of literacy too. The "long" hexametric Cup of Nestor inscription (no. 59) is a literary joke that plays on the "short" proprietary inscription. The "long" hexametric Mantiklos inscription (no. 61) is a dedication that furthers Mantiklos through *do ut des* and the "long" hexametric Nikandre inscription (no. 62) dedicates newly married Nikandre to the goddess and buys her freedom from harm;[152] but dedications can just as well be "short" (no. 24 "of Gaia"; the *lebes*, no. 41).

Our catalogue is a potpourri which was made under various conditions, but overall our impression is that Greek literacy first flourished in an

[152] Cf. Burkert, 1985: 149–52, for the Greek maiden's obligations to Artemis.

aristocratic world that is socially symposiastic and temperamentally agonistic, much like the life in the palace of Alkinoos described by Homer, where there was good food, drink, athletic contests, and bardic song. Into this world we will fit quite nicely the literary fun and erotic innuendo of the Cup of Nestor (no. 59); the Theran capping game (no. 65); the probable reference to *xenia* in the fragmentary hexameters on the Ithakan Geometric jug (no. 46); the dance contests of the Dipylon jug and the Theran pederasts; the Theban *lebes* offered as prize in an athletic contest (no. 41); and, in general, the fragments of hexametric song. Sexual license, a traditional feature of the all-male symposium, may even be reflected in "Oinantha gave me and a fillet(?) to Myrtikha" (no. 31), if Oinantha and Myrtikha are the names of hetairai.[153] At the feast sat the bard, singing hexametric song, the center of attention; at the feast were many cups, some with names written on them, including perhaps the "Stillwell sherds" from Corinth. At the feast – of utmost importance – were men who could read and write.

We might expect the writing of simple names to be the first step up from basic literacy. Yet we have few examples where we can be sure that only a personal name (or names) was written (nos. 5, 13, 17, 21, 37).[154] We are impressed by the sophisticated level of expression in archaic Greek inscriptions, coming from a time when we could expect simple expression. If alphabetic writing was invented in order to record epic song, as Wade-Gery suggested, we can explain this sophisticated level of expression, quite often metrical, on the premise that it will be easy to write "I belong to so-and-so" from a preexisting habit of writing hexametric verse, and even to fit "I belong to so-and-so" into a rough hexameter (no. 60: "I am the lekythos of Tataie..."), but hard after scribbling only "I am the cup of so-and-so" to write down "Whoever drinks of this lovely cup, a raging passion will seize" (no. 59). Yet the second example may be prior. It is not likely that the early possessors of alphabetic literacy filled imported rolls of papyrus with "Laqydidas is swell" and "I am the cup of Thario." From the Dipylon oinochoe (no. 58), the Cup of Nestor (no. 59), Mantiklos (no. 61), Nikandre (no. 62), and some of the Theran writings (esp. no. 63A), we can be certain that one thing the Greeks wrote down on the lost perishable medium in the earliest days of Greek literacy was hexameter verse. One does not begin a career in literate expression by borrowing a neighbor's dinner ware, prize pot, or monumental statue.

Indeed, except for simple formulas and occasional names, the early

[153] See above, 138.

[154] There are also six divine or mythological names (nos. 14, 15, 16, 19, 24).

alphabetic Greeks act as if they know *only* how to write hexameters. Among the "short" early alphabetic writing there are actual hexameters (no. 39 "To Deidamas his father Pygmas set up this abode"), rough hexameters (no. 38 "This is the tomb of Deinias, whom the shameless sea destroyed"), or plausible parts of hexameters (no. 46, the local Ithakan jug; no. 47, the slate fragment from the Athenian acropolis). *All* the "long" inscriptions are hexameters, except the first line of the Cup of Nestor inscription, which parodies the proprietary formula, and the high praise of Theran Krimon (no. 66 "By Apollo, right here did Krimon fuck... "), which scans like the first four feet of a hexameter, before going bad. There are no clear examples of other metrical patterns from our period.

The narrow range of themes and the inclination toward hexametrical expression in early Greek alphabetic inscriptions contrasts vividly with the widespread geographical distribution of these writings. From the first generations of alphabetic literacy are finds from about twenty sites from the farthest west of the Greek world to the farthest east: Selinous, Pithekoussai, Cumae, Ithaka, Crete, Kleonai, Corinth, Attica, Boiotia, Euboia, Thera, Anaphe, Naxos, Amorgos, Samos, Smyrna, Kalymnos, Rhodes. Certainly early Greek alphabetic writing was in the hands of men who moved around a good deal, unlike the Mycenaean scribes of the palace centers, who wrote administrative data on clay. Of course papyrus is a good deal more portable than clay. These travelers had *something* written on the papyrus they carried with them, even a copy of the *Iliad*, according to a plausible reconstruction of the background to the Cup of Nestor inscription.

According to a pattern of placement in the finds, the earliest possessors of the Greek alphabet featured Euboian adventurers who, if they enjoyed their profit, no doubt enjoyed their adventure too. In studying archaic Greek epigraphy we are studying archaic Greek society. In the romantic *Odyssey*, Homer takes for his theme the home-lusting wandering man who enjoys experience, who even crossed the river Okeanos in pursuit of knowledge. Homer had his audience – possibly in the banquet halls of Lefkandi. For the view that early literate Greek travelers used writing to keep their books, there has never been evidence. It may be that in the eighth century B.C., in Pithekoussai, the song of the bard was a valuable commodity.

We should agree that the epigraphic evidence is consonant with Wade-Gery's suggestion that the Greek alphabet was designed specifically in order to record hexametric poetry. This conclusion also satisfies perfectly our need to explain the historically very odd nature of the Greek alphabet

as a system of writing (Chapter 2). On the powerful combined evidence from the history of writing, on the one hand, and from the epigraphic finds, on the other, independent lines of inquiry supporting the same conclusion, we should accept that Wade-Gery's thesis is correct. We have learned something of immense importance about the adapter's motives. Whether, however, the adapter invented the alphabet in order to record hexametric poetry in general, or whether he designed it to record the poetry of one especial poet, is a topic to which we must now turn.

4

Argument from coincidence: dating Greece's earliest poet

περὶ δὲ Ἡσιόδου τε ἡλικίας καὶ Ὁμήρου πολυπραγμονήσαντι ἐς τὸ ἀκριβέστατον οὔ μοι γράφειν ἡδὺ ἦν, ἐπισταμένωι τὸ φιλαίτιον ἄλλων τε καὶ οὐχ ἥκιστα ὅσοι κατ' ἐμὲ ἐπὶ ποίησει καθεστήκεσαν.

I have looked deeply into the question of Hesiod's date and Homer's, but it is no pleasure to me to write about it, being too aware of the extraordinary censoriousness of people in general, and most of all of those who have always opposed me in questions of poetry. (Pausanias 9.30.3)

If about 800 B.C. the adapter was inspired by an individual poet to make his invention, and if tradition has preserved the poet's name and works, that poet must have been either Homer or Hesiod. Only they are early enough to have played such a role.[1] If the careers of either Homer or Hesiod coincided with the time of the alphabet's invention, it is plausible to conclude that it was Homer or Hesiod who inspired the adapter to his invention. Of course we can never attain certainty when attempting to reconstruct an event nearly three thousand years old for which there remains no direct documentary evidence; many who accept my argument so far may prefer to venture no further. Yet reflection, and evidence gathered from the study of oral poetries, has led me to oppose an agnostic position and to recommend that we consider in earnest the proposition that it was Homer or Hesiod who inspired the adapter. Which then? Which is older, Homer or Hesiod?

The question was argued already by Aristarkhos in the second century B.C., who insisted on Homer's precedence. This is modern orthodoxy too, and for good reason. Although we have no firm external grounds for dating Hesiod, he is usually put *c.* 730–700 B.C.;[2] R. Janko places him

[1] Such remote figures as Orpheus and Musaios belong to myth, not history, as Herodotus knew (2.53). Later followers of these mantic figures, like Onomakritos at Athens, tendentiously placed their founders in the age of heroes.

[2] West, 1966: 40–8. West idiosyncratically places Homer *later* than Hesiod, agreeing with Bethe 1929: 299–339 and Dornseiff, 1934: 41; cf. Munding, 1959: 1–9. In fact even 730–700 B.C. may be

somewhat later, *c.* 700–650 B.C.[3] Usual elements cited in the argument for Hesiod's date are his reference to Delphi (*Theog.* 498–500), his knowledge of Black Sea geography (*Theog.* 337–45), and especially Hesiod's remark that he sang at Khalkis in the funeral games of Amphidamas (*Erg.* 653–9) who, according to Plutarch (*Mor.* 153F), died in a sea battle during the Lelantine War between Eretria and Khalkis. The first two elements are too uncertain to yield information, but the third is more promising, assuming that Plutarch had real information about the death of Amphidamas. If we could date the Lelantine War, we could date Hesiod. Unfortunately, we cannot accurately date this famous conflict.[4] It is conventionally placed in the late eighth century on the grounds that the war preceded the introduction of hoplite tactics – Aristotle claimed that cavalry figured importantly in it (*Pol.* 1289b36–9). But we do not have a good date for the introduction of hoplite tactics (below, 203ff.), and even if we did we could not be sure how long before the introduction of hoplite tactics to place the war. It is possible, or likely, that the Lelantine War was no single conflict, but a drawn-out rivalry, flaring up repeatedly over generations.[5]

Homer's precedence over Hesiod seems in any event to be confirmed from internal features of language, as shown by the work of M. Parry, A. Hoekstra, A. Severyns, G. P. Edwards, and R. Janko,[6] though we should encourage a healthy skepticism that absolute dates can be assigned to observed transformations in the poetic diction.[7] Could, then, Homer have been contemporary with the adapter?[8] If so, he is likely to have been the man who inspired the adapter to his creation, for it seems to me implausible that our revolutionary new writing was inspired by no poet in

too late for Hesiod, if Hesiod preceded Eumelos of Corinth, as Herodotus implies (2.53). Eumelos was contemporary with Arkhias, who founded Syracuse from Corinth in 734 B.C. (Clement Alex. *Strom.* 1.131.8 Dindorf; cf. Huxley, 1969: 22).

[3] Janko, 1982: 94–8, 228–32.

[4] Cf. Jeffery, 1976: 63–70; Janko, 1982: 94–8, with bibliography.

[5] Cf. Jeffery, 1976: 66.

[6] M. Parry, 1971: 131, 238, 279–80; Severyns, 1946: 68–9; 88–92; Hoekstra, 1965: 25–30; G. P. Edwards, 1971; Janko, 1982. For an in-depth review of Janko's important work, see Cantilena, 1986.

[7] The marked personal tone that Hesiod imposes on his traditional material, revealing himself "a surly, conservative countryman, given to reflection, no lover of women or of life, who felt the gods' presence heavy about him" (M. L. West s.v. "Hesiod," *OCD*), is often given as reason for placing Hesiod among the poetic personalities of the archaic poets of the seventh and sixth centuries – Arkhilokhos, Semonides, Mimnermos, Sappho, Alkaios, Solon. This is a circular argument, which assumes that all hexametric verse in Homer's day was like Homer. The careers of Homer and Hesiod may well have overlapped, giving rise to the tradition that they had met (cf. the probably spurious Hesiodic fragment 357 Merkelbach–West and the Antonine *Certamen Homeri et Hesiodi*, which, however, contains old material).

[8] For standard discussions of Homer's date, Schadewaldt, 1965: 87–129; Lesky, s.v. "Homeros," *RE* Suppl. 11, 1967: 687–93; Heubeck, 1974: 213–28.

particular, or by someone whose name is lost, while at the same time it was also used to record the most seminal poet in the history of culture. Yet that is the alternative. It would be interesting to see whether a hypothesis that places Homer and the adapter *en face* could clarify other obscurities that bedevil our efforts to understand the origins of classical Greek culture: why did writing spread as it did? why did writing serve Greek culture as it did? why did the narrative mode in Greek art appear when and as it did? why did Homer's poems dominate Greek culture as they did?

Let us inquire systematically into the question of Homer's date. We do not, of course, have direct testimony for Homer's life. Any estimate of his *floruit* will depend on Homer's text and on such external evidence as archaeological data. Fortunately, from external data provided by the history of writing, we can easily establish a *terminus post quem* for the poet, since the *Iliad* and *Odyssey*, though products of oral composition, could not have been preserved in the form we have them without the aid of writing.[9] This conclusion is a necessary consequence of the fact that for an oral poet there is no such thing as a fixed text. Even if, contrary to his training, an oral poet wanted to memorize a song "word for word," he could not have done so, because verbatim memorization is the result of endless repetition and before writing there was no fixed text to be repeated.[10] Hence the *Iliad* and the *Odyssey* that we possess today represent a single version, the one that was written down. The moment of recording of the *Iliad* and the *Odyssey* is also the moment of their creation.[11] As A. B. Lord put it, the "dream of an Homeric *Iliad* and *Odyssey* preserved in 'oral tradition' in 'more or less' the same form over several generations is demonstrably false."[12]

[9] By "*Iliad*" and "*Odyssey*" I mean the received text, the vulgate, and reject by implication any attempt to separate the vulgate from an oral poet named Homer, who once lived. Of course minor distortions of text in the course of transmission were inevitable and did take place.

[10] Even with the aid of writing, verbatim memorization of a long poem is no easy matter. An article, "Speak Memory," *Harvard Magazine* 90, no. 3 (1988): 42–6 by R. M. Galvin reports on one S. Powelson, who from childhood was gifted with phenomenal powers of memory (e.g. at the age of ten he memorized in a single evening the vocabulary list for a year's French study). Later in life Powelson decided to memorize the *Iliad* in Greek, which he had studied in college. He began his project in 1978. After eight years' effort he had successfully memorized the first 22 books. He continued to work on the last two, "though the Catalogue of Ships and Warriors in Book Two needs to be rememorized" (42).

[11] It is wrong to speak, as many do, of the eighth century as a time "when Homer's poems took on their final shape." Homer's poems "took shape" at the moment when they were recorded. The once popular question "Did Homer compose both *Iliad* and *Odyssey*?" seems to me idle; one can fashion criteria that yield an answer either way. My own view is that both poems issue from a single creative intelligence.

[12] Lord (*contra* G. S. Kirk and others), 1970: 18. See also A. Parry, 1966; Finnegan, 1977: 140; Morris, 1986: 83–6.

In sum, to have our *Iliad* and *Odyssey* we must put Homer and writing together. Here we find our *terminus post quem*, necessarily *c.* 800 B.C., the date of the introduction of the alphabet into Greece.

Our resources for finding a *terminus ante quem* are, unfortunately, far more limited. We can, first, examine the texts themselves and ask:

I. What dates does archaeological research give for objects, practices, and social realities mentioned in the *Iliad* and the *Odyssey*?
II. Is there anything about the *language* of the *Iliad* and the *Odyssey* that can be dated?

And, second, we can look outside the texts to ask:

III. What are the earliest outside references to the *Iliad* and the *Odyssey*?
IV. What did ancient traditions report about Homer's date?

Let us consider these questions in turn, to discover whether the world of Homer could in fact be the world of the adapter too.[13]

I. WHAT DATES DOES ARCHAEOLOGY GIVE FOR OBJECTS, PRACTICES, AND SOCIAL REALITIES MENTIONED IN HOMER?

It is becoming increasingly clear that it was not the business of those who "guard ... the heritage of the past" to give a factually accurate account of the past or even to preserve inherited traditions unchanged; it was to validate by their account of the past the social and political conditions of the present. (O. T. P. K. Dickinson)[14]

Limitations of method

Homer, as an oral poet, depended on the good will and pleasure of his audience, without which he could not exist. He must have presented to his audience a recognizable world containing much of the world that Homer shared with his audience, while incorporating, of course, traditional and fantastic elements of saga and folktale, such as the archaizing use of bronze alone for weapons, while iron is used for everyday implements; the Mycenaean boar's-tusk helmet in the Doloneia; rivers and horses that talk and works of art that are alive (as Akhilleus' shield); the gods; material

[13] For the following I am indebted to Kirk, 1960: 191–6 (reprinted in Kirk, 1964, 174–90. See also Kirk, 1962: 179–92, 282–7; and Gray, 1968; Canciani, 1984: 90–2.

[14] Dickinson, 1986: 21. For the contemporaneity with the poet Homer of the world described in the *Iliad* and the *Odyssey*, see also Morris, 1986.

accoutrements of incredible cost and elegance. By such archaizing and fantastic elements, and through the claim that men in epic were better in every way than men are today, and through the very archaism of his inherited oral-formulaic style,[15] the poet created a literary mood characterized by "epic distance."[16] But, as I. Morris has put it, the "much-vaunted oral tradition was not in any sense a 'chronicle,' a repository of antiquated institutions and world-views; it was on the contrary intimately linked to the present, consisting only of what the parties to the oral performance thought proper."[17] On this premise, if we compare the social and material world of the poems with the social and material world of Greece attested in the archaeological record, and discount the conservative traditional and fantastic elements designed to create "epic distance," we might, in theory, find a fit between Homer's description and a real world placed in time.

The archaeological record through the eighth century is, however, very thin. New discoveries often upset earlier conclusions.[18] Especially have important finds at Lefkandi changed our understanding of the Dark Age.[19] And the earliest attested use of an object or practice in the archaeological record is no guarantee that the object or practice has no earlier history; it would be absurd to think so. Furthermore, we have no certain means to distinguish between an object that the poet, or a predecessor, has seen, and what serves the poet's rhetorical framing of the tale in the heroic past, especially in his description of precious things. Folktale by itself, as a genre, exploits the description of wonderful things, and the *Odyssey* is pervaded by folkloristic elements. Finally, the method is easy to misuse, because it encourages a mechanical excision of Homer's descriptions from their literary context when they are properly meaningful only when taken in context.

For these reasons the history of inferences about the date of Homer from material finds has been discouraging. We will, nonetheless, do the best we can, since many hold that comparison of archaeological finds with objects and customs in Homer's world is the only reliable means of placing

[15] Cf. M. Parry, 1971: 361.

[16] Redfield, 1975: 36–7. See also Finley, 1978: 157; Vidal-Naquet, 1981; Morris, 1986: 89–91.

[17] Morris, 1986: 88.

[18] Compare D. H. F. Gray's revised list of datable elements in the second edition of M. Platnauer's *Fifty Years of Classical Scholarship* (1968: 46–9), with her list in Platnauer's first edition (1954: 28–9): she reverses early conclusions on bronze body-armor, cremation burials, and hoplite warfare.

[19] In addition to Popham–Sackett–Themelis, 1979–80, see, for the rich burials of the tenth century B.C., Popham–Touloupa–Sackett, 1982a and 1982b.

the poems in absolute time. Let us omit consideration of possible Bronze Age reminiscences in the poems,[20] for as I have attempted to demonstrate, in my view Homer is likely to have lived at or after 800 B.C., when the means for recording his poems became available. Let us turn immediately to items in the poems commonly alleged to be archaeologically significant for the dating of Homer: (1) the use of the spear; (2) the three- and four-horsed chariot; (3) Helen's silver work-basket; (4) free-standing temples; (5) the practice of cremation; (6) the prominence of Phoenicians; (7) the apparent absence of literacy; (8) Odysseus' odd brooch; (9) the lamp that Athene carries in *Od.* 19.33–4; (10) the Gorgoneion, referred to four times; (11) the description of allegedly hoplite tactics; (12) the practice of sending home the ashes of the dead; (13) the procession to place a robe on a seated statue of Athene in the Trojan citadel.

Let us examine each in turn.

The use of the spear

The earlier literature greatly oversimplified the relation between Homer's description of the use of the spear in battle, artistic representations of the Mycenaean and Dark Ages, and the archaeological finds. The topic is one of exceptional complexity, which I can only summarize.[21] It now appears that Homer confuses two styles of fighting, one conceivably derived from the Mycenaean age, details of which he may have inherited through the oral tradition, and the other derived from his own day.

The first style uses the single thrusting spear, Homeric ἔγχος;[22] the large tower shield, Homeric σάκος; fighting in φάλαγγες (or στίχες); and,

[20] Reasonably certain Mycenaean elements in Homer seem today confined to: the great body-shield (always with Aias, once with Hektor, once with Periphetes: see Borchhardt, 1977: 25–7); the boar's-tusk helmet of Meriones (Borchhardt, 1977: 62); silver-studded swords (thirteen times, always in the formula φάσγανον ἀργυρόηλον or ξίφος ἀργυρόηλον: cf. Foltiny, 1980: 268–9); Nestor's dove-cup (*Il.* 11.632–37: see Bruns, 1970: 25); the technique of metal inlay (*Il.* 18.548–9); the ordinary use of bronze for weapons; the mention of Egyptian Thebes (*Il.* 9.381–4; *Od.* 4.126–7) (Burkert (1976) denies that the poet could have known about Egyptian Thebes before the sack of Assurbanipal in 663 B.C., but the great Egyptian capital was known to Greeks of the Mycenaean age); Mycenaean geography, especially in the Catalogue of Ships; the Trojan War itself, taken to be historical; and perhaps the grand scale of Odysseus' house (though never so grand as Mycenaean palaces). While the Mycenaean origin of most of these items has been questioned, Mycenaean reminiscences do seem to form a part, however small, of the poetic picture that Homer paints.

For the complicated problem of Dark Age Geometric elements in Homer, cf. Nilsson, 1933: 122ff.; Lorimer, 1950: 203, 257ff., 271, 300, 323ff., 452, 505ff.; Webster, 1958: 167ff.; Kirk, 1962: 94; Greenhalgh, 1973: 2, 13–14, 41, 170.

[21] For full treatments, see especially Snodgrass, 1964, and Höckmann, 1980.

[22] = Mycenaean *e-ke-a ka-ka-re-a*, i.e. ἔγχεα χαλκάρεα: Ventris–Chadwick, 1973: 361, no. 263.

possibly, the chariot as a war machine. This style of fighting is said to belong to the early Mycenaean age, and to have become obsolete by Late Helladic IIIa (*c.* 1425 B.C.).[23]

The second style of fighting is with two or even three spears (Homeric δόρυ, dual δοῦρε), one of which is thrown as a javelin, the other used for thrusting;[24] and the small shield or buckler (ἀσπίς). In this style the warriors usually fight in isolation, warrior against warrior, and they use the chariot for transportation around the field.

The second style of fighting was fully developed by the twelfth century B.C., in the late Mycenaean age, and continued through the eighth century.[25] Homer's description of fighting therefore fits any time between 1100 B.C. and 700 B.C., though he shows knowledge of more archaic styles of fighting.

The three- and four-horsed chariot

Riven with pain, the horse leaped as the arrow sank into his brain, and he confused his fellows as he writhed upon the bronze. But the old man cut away the traces [παρηορίας] and sprang out with his sword, while the swift horse of Hektor came on through the melee... (*Il.* 8.85–9)

Chariots in Homer are usually drawn by two horses, whose yoke is fixed to the back of their necks by straps around their necks. To the yoke is attached a wooden pole attached to the car; this was the ordinary means of yoking horses in the Bronze Age.[26] But sometimes Homer speaks of a third horse, and even a fourth, apparently attached to the yoke by means of παρηορίαι, "traces."[27] In Homer's descriptions, these traces are so loose that if a trace horse is killed or wounded – as, for some reason, only trace horses ever are – its collapse will not overturn the chariot or destroy the solid mechanism of yoke and staff. The παρηορίαι can be slashed away and the chariot freed.

[23] See Chronological chart I for the Bronze Age (cf. chart in Hope Simpson–Dickinson, 1979) and chart II (from Coldstream, 1968: 330) for the Geometric period.

[24] In addition to ἔγχος and δόρυ Homer uses αἰγανέη, αἰχμή, ἄκων, ἐγχείη, μελίη and ξυστόν for "spear." Trümpy (1950: 52ff.) calls these "Trabantenwörtern," "satellite-words" – they revolve around the other, principal terms. Fighting with more than one spear is sometimes said (e.g. Lorimer, 1950: 256–7) not to have been practiced in Mycenaean times, but it certainly was (Buchholz, 1980: 288–90, figs. 73, 74a–b, 75).

[25] Even in the seventh century, hoplites, who normally fight at close range with the single thrusting spear, are sometimes shown with two spears, e.g. on a seventh-century aryballos: Snodgrass, 1964: 138 and pl. 15.

[26] The best study of bronze age chariots is Crouwel, 1981: 147–51. For the topic cf. also Wiesner, 1968.

[27] Three horses: *Il.* 8.80–109; 16.148–54, 467–71; *Od.* 4.590. Four horses: *Il.* 8.184–91, 11.699–702; *Od.* 13.81–3. Cf. also *Il.* 5.271; 15.679–82; 23.171.

The purpose of the trace horse is never made clear. It seems not to have been a spare horse, but since yoked horses are never killed, and hence there is no occasion to replace them, it is hard to be sure about this. One guess is that the trace, attached to the yoke or to the car by means of a long thong and controlled by reins leading to the charioteer,[28] ran ahead of the yoke horses and inspired them to pull harder.[29] No doubt they also helped to pull the car, though how the traces were attached to the animal is impossible to say.

The use of one trace horse may have suggested the use of two, a sophisticated, nearly technological, innovation in the use of animals in war and sport that, once discovered, was not likely to be forgotten. The archaeological evidence seems to suggest two-horsed chariots in the Bronze Age; two *or* four-horsed chariots (the regular complement + two trace horses) in the Postgeometric period; but *three*-horsed chariots (the regular complement plus one trace horse) only in the eighth century.[30] Homer does not really fit into this scheme, however, because while a single trace horse is usual, two trace horses are also mentioned. Because of the nonrepresentational conventions of Greek art through most of the Dark Age, we cannot be sure when the innovation of the trace horse came in. There is not enough information here for clear conclusions about Homer's date.

Helen's silver work-basket

When Helen takes her place in the palace at Sparta, maids place for her a chair, a rug, and a silver basket, the last a gift from Egyptian Alkandre:

> She [Alkandre] gave her a golden distaff and a basket with wheels made of silver, and the lips were fashioned of gold. (*Od.* 4.131–2)

There is no agreement about the probable date of a basket like this. S. Benton compared Homer's description of the basket to a Geometric wheeled tripod from Ithaka;[31] G. S. Kirk placed the invention of an appropriate model for the basket to the beginning of the first millennium;[32] while J. Boardman traced the basket style to Cypriote or Near Eastern wheeled trolleys from the Late Bronze Age.[33] The basket "with wheels of silver and lips of gold" is in fact a literary topos in Homer, one of those fanciful, wonderful objects that Homer loves, like the magic wheeled tripods of Hephaistos (*Il.* 18.374) which "under their own power might

[28] Helbig, 1887: 129; Wiesner, 1968: 21. [29] Wiesner, 1968: 22.
[30] Wiesner, 1968: 66, with bibliography of vase and other representations.
[31] Benton, 1934–5: 35, 88–9. [32] Kirk, 1960: 193. [33] See Kirk, 1962: 111.

enter the gathering of the gods, and return home again, a marvel to behold." Though the basket may have had humbler antecedents in the real world, the archaeological evidence for date or provenance is equivocal.

Free-standing temples

Hear me, thou of the silver bow, who stand over Khryse and sacred Killa and rule Tenedos with power, Smintheus, if ever I roofed for you a pleasing shrine [νηόν], or burned for you the fat thighbones of bulls or goats, fulfill for me this prayer. (*Il.* 1.37–41)

Roofed sacred enclosures appear seven times in the *Iliad* and twice in the *Odyssey*.[34] Here is a promising criterion, because it is often possible to identify religious buildings in the archaeological record, and they are easier to date than brooches, silver work-baskets, or fighting tactics.

We now know of about seventy sites for worship in the Greek world between 1100 and 700 B.C. Half of the sites had structures on them, almost all from the eighth century. "The Greek temple," Coldstream writes, "as an independent and freestanding structure, is largely a creation of the eighth century."[35] Yet the extraordinary find of an apsidal heroön on the mound called Toumba at Lefkandi, assigned to 1050–900 B.C., is evidence for religious architecture at a much earlier date.[36] The importance to Homer of the Lefkandi find is enhanced by its proximity in Euboia to the first users of the alphabet. At Kommos, on Crete, too, a sanctuary as early as *c.* 925 B.C. has recently been unearthed.[37] About a hundred years later, an important temple was built to Hera Akraia at Perakhora, a small outpost of Corinth, where some early inscriptions have also been found (above, no. 45). The Perakhora temple contained foundation deposits of Geometric clay models that perhaps represent a still earlier, undiscovered temple in Corinth.[38] The great Heraion on Samos, by far the largest structure of its day, was erected before 800.[39] Slightly later, in the early eighth century, was built the first hekatompedon, "a hundred-foot long temple," at Eretria, again in Euboia, in the sanctuary of Apollo Daphnephoros.[40]

[34] Khryses' in *Il.* 1.39; Athene's temple on Troy, four times in *Il.* 6; Apollo's temple in *Il.* 5.446, 7.83; Nausithoos made a temple in *Od.* 6.9–10; Odysseus promises a temple to Helios Hyperion in *Od.* 12.346–7.

[35] Coldstream, 1968: 317; for the finds, *ibid.*: 317–40. For a catalogue of the sites with bibliography, Drerup, 1969: 5–76. For a summary of early temples, Coulton, 1977: 30–50.

[36] Popham–Touloupa–Sackett, 1982a. [37] Shaw, 1982: 185.

[38] Drerup, 1969: 28, 72–4, pl. 11 (a,b). The date of the Perakhora temple is disputed, some placing it even in the late eighth century: see Tomlinson, 1969; Salmon, 1972; and Tomlinson again, 1977. [39] Lorimer, 1950: 433ff.; Drerup, 1969: 13–14. [40] Coldstream, 1968: 322–4.

Although Homer's mention of free-standing temples accords best with the archaeology of the eighth century, such structures are known from much older times, so that from this criterion we can derive no *terminus post quem*.

The practice of cremation[41]

This is the way for mortals, when they die: no longer do the sinews hold the flesh and the bones, but the mighty power of blazing fire destroys them, once the life [θυμός] has left the white bones and the spirit [ψυχή] flies away, hovering, like a dream. (*Od.* 11.218–22)

The very mention of Homeric burial-customs is almost enough to bring a smile to the specialist faces today. (A. M. Snodgrass)[42]

Although there is evidence for occasional cremations in late Mycenaean inhumation cemeteries of the twelfth century and later,[43] inhumation, between the sixteenth and the twelfth centuries B.C., was the ordinary means of burying the dead in the whole world of Mycenaean Greece. For unclear reasons,[44] the collapse of the Mycenaean world brought with it a change in burial practice, and cremation, from the eleventh to the seventh centuries, became more and more the normal means of disposing of the dead. Then inhumation reappears; in Athens, where our information is fullest, it is again practiced by the eighth century, but never entirely replaces cremation. The only places from which we have evidence of an exclusive practice of cremation during the Dark Age is at Athens in the ninth century, and perhaps in the vicinity of Assarlik (near Halikarnassos) and Kolophon in Asia Minor,[45] and in some sites on Thera and Crete in the Aegean.[46]

In both the *Iliad* and the *Odyssey* cremation is the sole means for disposing of the dead. πυρὸς λαγχάνω, "to lay hold of fire," and πυρὸς ἐπιβαίνω, "to go upon the fire," mean, *tout court*, "to die."[47] Homer's portrayal of cremation as the exclusive and utterly traditional means of treating the dead does not quite accord with Greek practice anywhere,[48] though it seems suitable to the Dark Age on the whole. In general, Homer

[41] For the following, cf. especially Snodgrass, 1971: 140–212; Morris, 1987.

[42] Snodgrass, 1971: 391.

[43] Desborough, 1964: 71.

[44] Cf. Burkert, 1985: 190–1.

[45] Which could agree with the tradition that Homer came from the island of Khios or from Smyrna, both near Kolophon.

[46] See Andronikos, 1968: 130, for a full account.

[47] Cf. Andronikos, 1968: 129.

[48] Note, for example, that in the "heroön" at Lefkandi the cremated body of a warrior was buried with the inhumed body of a woman: Popham–Touloupa–Sackett, 1982a: 172–3.

talks about the deaths of men far from home, where cremation had a practical utility that transcended custom. We cannot find a *terminus ante quem* here.

The prominence of Phoenicians

Thither came Phoenicians, skilled in seafaring, shysters [τρῶκται], who had a thousand gewgaws in their black ship. (*Od.* 15.415–16)

The Greeks themselves, as Herodotus is the first to tell us, thought their relations with Phoenicians to be immemorially old. In the nineteenth and early twentieth centuries scholars accepted this judgment uncritically.[49] A lack of material evidence for these relations, however, led to increasing skepticism, until by the 1930s the Phoenicians were denied influence on the Greeks at any time, other than, of course, their bequest of "the alphabet." More recent finds complicate the picture.

We now identify two periods of interrelation between Phoenicians and Greeks, one Mycenaean, the second Geometric from *c.* 850 B.C. onward. The second rivalry led eventually to the bitter clash between Phoenician and Greek in and about Sicily.[50] The prominence of Phoenicians in Homer (his Φοίνικες abroad or Σιδόνιοι in their homeland), has therefore been taken as either an epic reminiscence of the Bronze Age or as a direct reflection of Homer's world.[51] Nilsson argued in 1933 that the second alternative must be true,[52] and his judgment, supported especially by the work of J. D. Muhly, has won general assent.[53] In the Bronze Age, interchange between Greek and Phoenician was confined to the Syrian littoral. In the Early Geometric the Phoenicians first sent master-craftsmen to live in the Aegean, set up unguent factories on Aegean islands, and taught the Greeks how to write. These are Homer's trinket-hawking Phoenicians who touch Egypt, Libya, Crete, Elis, Messenia, Ithaka, steal Eumaios as a child, and act in general as thorough villains.[54]

The second period of Phoenician interrelation with the Greeks begins about 850 B.C., but it is of no use for establishing a *terminus ante quem*

[49] Cf. Bunnens, 1979: 92ff., for a survey of the Greek literary evidence concerning the Phoenicians. [50] Coldstream, 1982, for a summary of the topic.

[51] Φοίνικες or Φοινίκην in *Il.* 23.74; *Od.* 4.83, 13.272, 14.288, 291; 15.415, 419, 473; Σιδόνιοι or Σιδόνες in *Il.* 6.290–1, 23.743; *Od.* 4.618 = 15.118. Phoenicians as Bronze Age reminiscence: Stubbings, 1962.

[52] Nilsson, 1933: 130–7; cf. Dunbabin, 1948: 35; Lorimer, 1950: 52–3, 78–9; Kirk, 1960: 194; Kirk, 1962: 185.

[53] Muhly, 1970; also, Heubeck, 1979: 83–4. For linguistic arguments supporting the identification of Homer's Phoenicians with the Phoenicians of the iron age, Wathelet, 1974.

[54] Cf. *Od.* 13.271–86; 14.285–312; 15.403–84; Hdt. 1.1–5.

because Greek and Phoenician interaction, especially in the far West, continued deep into the historical period.

The absence of literacy

He [Proitos] sent him [Bellerophon] to Lykia, and he gave him baneful signs [σήματα λυγρά], scratching them on a folded tablet [γράψας ἐν πίνακι πτυκτῷ], many and deadly, and he bade him show them to his own wife's father [i.e. Iobates, king of the Lykians], that he [Bellerophon] might be killed. (*Il.* 6.168–70)

... much uncertainty and controversy surrounds the question whether even those who fought at Troy so many years later [than Kadmos] made use of letters, and the true view prevails, rather, that they were not familiar with our present mode of writing. (Josephus (A.D. first century), *In Apionem* 1.11)

Observed by the ancients, and from the time of F. A. Wolf central to Homeric criticism, is the illiteracy of the Homeric heroes and the world that they inhabit. This item in our catalogue has a bearing different from the others, because writing is not just an object or social practice which Homer might have mentioned but did not: it is the technological means that made the *Iliad* and the *Odyssey* possible. We have already noted the paradox of an oral poet recorded in writing, and have posited as *terminus post quem* the date of the introduction of the alphabet. Still, if Homer comes after writing, why does he never mention writing?

In a single passage, quoted above, Homer *may* mention writing. Bellerophon, slandered by the lustful wife of Proitos, king of Argos, has been sent by Proitos to the Lykian king to be killed. A large literature has accrued around the meaning of these lines.[55] Our questions are:

(1) Do the σήματα in the phrase σήματα λυγρά, "baneful signs," refer to lexigraphic writing, visual symbols (logographic or phonographic) that make a permanent record of human speech? or do σήματα refer to semasiographic writing, in which information is communicated by means of pictures, directly and without an intervening linguistic form?
(2) If σήματα refer to lexigraphic writing, do they refer to an historical script?

F. A. Wolf created the modern form of the Homeric Question by renouncing the lexigraphic nature of Homer's "baneful signs" and arguing that they were semasiographic, a view that Aristarkhos and other

[55] For a recent review, Aravantinos, 1976; also, Heubeck, 1979: 126–46, for full bibliography (and unconvincing conclusions).

scholiasts had held in antiquity.[56] Other ancient commentators held the opposite view, as have moderns who suggest that the script was Hittite hieroglyphs, Cypriote, Phoenician, Linear B remembered through oral tradition, or even Greek alphabetic writing.[57]

In interpreting the meaning of σήματα λύγρα we need to remember that the story of Bellerophon, in which the hero slays the dreaded Khimaira, is a dragon-combat tale of a type common in the Ancient East from the beginning of the third millennium; its most famous example is the Babylonian *Enuma elish*.[58] The hero of the Bellerophon story may even bear an Eastern name,[59] the triform monster Khimaira (*Il.* 6.181) is certainly inspired by Eastern prototypes,[60] and the tale is set in the East, in Lykia. Two other Eastern folkloristic motifs are embedded in this dragon-combat tale: "Potiphar's Wife," so called after the story of virtuous Joseph who rejects the advances of his master's wife and is tempted, slandered, and tormented by her (Genesis 39.7–20);[61] and the motif of the "fatal letter," first attested in the story of David and Uriah (2 Samuel 11).[62] It is the motif of the fatal letter – "kill the bearer" – that brings with it the reference to a "folded tablet" (πίνακι πτυκτῷ), a scribal implement invented in the ancient East of which one example from the Bronze Age[63] and others from the eighth century B.C. have survived.[64]

Homer, then, has received an Eastern story in an Eastern form. The "fatal letter" has come with the story. No specific script is meant in his tale of Bellerophon. Homer's ignorance of writing allows him to use the same word here, σήματα, that he uses elsewhere to designate explicitly nonsemantic, semasiographic signs. When the Akhaian warriors prepare to draw lots to see who will fight Hektor (*Il.* 7.181–9), each candidate places

[56] Cf. Wolf, 1795: 86, note 49: mihi veri persimile videtur, iam tum inter cognatos obtinuisse notas quasdam symbolicas, quibus de nonnullis gravissimis rebus sensa animorum inter se communicarent, in primisque hoc genus θυμοφθόρων σημάτων, inventum fortasse ea aetate, qua ultionis caedium et inimicitiarum dira saevitia vigebat... Scholia: A-schol. to *Il.* 6.169; 178; cf. Eustath. *Comm.* 632.50; schol. Lond. to Dion. Thrax (p. 490, Hilgard).

[57] For bibliography of modern views, Heubeck, 1979: 134, note 714. Heubeck himself thought that Homer refers to alphabetic writing, a view shared by Burkert, 1984: 51–2. Scholia.: T-schol. to *Il.* 6.168, 176; 7.175, 187; 21.445; BC-schol. to *Il.* 6.168–9.

[58] Pritchard, 1969: 60–72. For the combat myth, Fontenrose, 1959.

[59] Cf. Tritsch, 1951; Dunbabin, 1953. I take Bellerophon from Semitic *Baal*, though there is plenty of room for disagreement. See Malten, 1944; Schachermeyr, 1950: 174–88. Heubeck argued for a Greek name: 1954: 25–8; Heubeck, 1979: 132.

[60] For Eastern prototypes to the monster's shape, cf. Roes, 1934.

[61] "Potiphar's Wife" is one of the oldest literary motifs in the world, appearing first in a Nineteenth-Dynasty Egyptian tale called "The Two Brothers" (Lichtheim, 1976, vol. II: 203–11). See Thompson, 1951: 267, 276, 279 (= Aarne–Thompson motif K2111).

[62] See Aarne–Thompson, 1955–8: K978.

[63] Bass–Pulak, 1986.

[64] From Nimrud. See Wiseman, 1955.

a σῆμα on his lot. When the lot is cast, the herald cannot tell to whom the winning lot belongs; he must carry it down the line until Aias recognizes his own σῆμα. On Homer's own evidence σήματα refer to semasiographic, not lexigraphic signs.

Wolf was surely right to maintain that Homer knew nothing of writing. Had he known of writing, here was his chance to show it. Since Homer does refer to communication by means of graphic signs, albeit semasiographic signs, it would be specious to hold that he omits references to lexigraphic writing through his wish to create "epic distance." He does not refer to lexigraphic writing because he is not familiar with it. While he did not include the new technology in his ecumenical vision, the new technology has made possible the recording of his poems. Such conditions – Homer's ignorance of writing at a time when his poems were nevertheless written down – can only fit the very earliest days of Greek literacy, *c.* 800–750 B.C. From this item we may tentatively suggest a *terminus ante quem* of 750 B.C.

Odysseus' brooch

But the brooch upon it [the cloak] was made of gold, with twin fastening-tubes [? αὐλοῖσιν διδύμοισι] and on the front it was fancily wrought. A dog held a dappled fawn with its forepaws, pinning it down as the fawn struggled; everybody was amazed to see it, how, though made of gold, the dog pinned the fawn and strangled it, while the fawn squirmed with its feet, trying to get away. (*Od.* 19.226–31)

On the basis of the word αὐλοῖσιν, "tubes," W. Helbig compared Odysseus' pin with a complicated Etruscan clasp dating to the first half of the seventh century.[65] The mechanism of the Etruscan clasp, of which about a half dozen examples have been found, presents on one side double pins and on the other side matching sheaths, perhaps Homer's "tubes," into which the pins are inserted. Lorimer accepted the identification and argued on this basis for 680 B.C. as *terminus post quem* for Odysseus' brooch.[66]

But Homer's description of the operation of the brooch is too casual for certain identification, and some deny that the Etruscan examples are at all parallel.[67] S. Marinatos assumed an Oriental model and was able to find similarities with finds from Megiddo and Gordion, and even from Hallstatt graves in Bosnia and Albania.[68] F. Studniczka thought the pin to be a

[65] Helbig, 1887: 274ff. [66] Lorimer, 1950: 511ff. [67] Jacobsthal, 1956: 141.
[68] Marinatos, 1967: 37, Table A VIIc.

bow-fibula with two pins.[69] The hound pinning the fawn led Arthur Evans to claim the brooch as Minoan, while F. Poulsen assigned it to the seventh century at the earliest on the same iconographical grounds.[70] But animals in combat are one of the oldest artistic motifs in Mediterranean art.[71] J. Bennet suggests the Geometric fibulae found mostly in Boiotia during the Late Geometric and Subgeometric, which have engraved catchplates with lions devouring their prey, and even hollow bows (= αὐλοῖσιν?).[72]

Since we have no clear archaeological parallels, we cannot use the brooch to establish a *terminus ante quem*. To Homer the brooch serves several functions: it is a token to prove that the beggar who shows it has indeed seen the long-lost king; it is a rich and elaborate work of art; it is a metaphor for the violence of the natural world; and it excites wonder and delight. Like another θαῦμα ἴδεσθαι, the shield of Akhilleus, the pin of Odysseus seemed nearly alive.

The lamp that Athene carries

And before them [Odysseus and Telemakhos] Pallas Athene, holding a golden lamp [λύχνον], made a beautiful light. (*Od.* 19.33–4)

The word λύχνος, which in later Greek always means "lamp," occurs only here in the Homeric corpus. Its uniqueness in the corpus puzzled the Greek scholiasts,[73] for the ordinary means of illumination in Homer is the torch, variously called δαίς or δάος or λαμπτήρ.[74] According to the archaeological record, lamps were common in the Greek Bronze Age, then mysteriously dropped from use in the Dark Age, perhaps because of a decline in oil production caused by social upheaval: it was evidently cheaper and more efficient to light a torch than to burn rare and expensive oil. Perhaps reintroduced from the East, lamps begin to reappear about 700, and thereafter occur with ever increasing frequency.[75]

Such is the usual view. Yet it would be hasty to conclude that all knowledge of lighting a rag in a dish of oil to provide dim illumination passed utterly from the land of Hellas in the Dark Age.[76] In 1956

[69] In Bethe, 1929: II^2, 145ff.; cf. Jacobsthal, 1956: fig. 412; Bielefeld, 1968: 6–8.

[70] See Nilsson, 1933: 122.

[71] E.g. a steatite and alabaster disc of King Den from Egypt's First Dynasty, *c.* 2950 B.C., shows a vigorous hound with glinting teeth firmly clenched around the throat of a gazelle flipped on its back, while a second hound pursues a second gazelle, truly a Homeric image (Aldred, 1980: fig. 9).

[72] Personal communication. For the fibulae, cf. Coldstream, 1977: 204.

[73] Athenaios 15.700E. [74] For the following discussion, see Jantzen–Tölle, 1968: 83–98.

[75] For a certain example *c.* 700 from the Athenian agora: Howland, 1958: 7–8, pl. 1 (29).

[76] Cf. Benton, 1953: 329; Webster, 1958: 107.

V. R. d'A. Desborough published a tiny clay lamp from Mycenae, found in a Protogeometric context.[77] From the temple grounds at Dreros on Crete comes one complete lamp and other fragments, hard to date but possibly Geometric,[78] and from Arkades come two clay lamps, similar to those from Dreros, which D. Levi placed in the Geometric period.[79] A lamp is a simple thing, a wick in a bowl, not always easy to identify. Early lamps found in sites without rigid stratigraphy are, furthermore, extremely hard to date.[80] Even if the usual source of light in Homer's day was the torch, a lamp burning precious oil may have been used on special occasions, such as when a goddess came to earth, even a golden lamp. The context of Homer's description – the rare lamp in a world of torches – accords well with what we expect of any time between 1100 and 700 B.C. We cannot be more precise.

The Gorgoneion, referred to four times

Around her shoulders she [Athene] threw the tasselled aegis, dread-inspiring, around which were set Fear [Φόβος] as a crown, Strife ["Ερις] within, Strength [Αλκή], and icy Attack ['Ιωκή], and within was the head of the terrible monster Gorgo [Γοργείη κεφαλή], dread and awful, a portent of aegis-bearing Zeus (*Il.* 5.737–42)

Hektor turned his fair-maned horses this way and that, his eyes like those of Gorgo [Γοργοῦς] or of man-slaying Ares. (*Il.* 8.348–49)

And thereon [on Agamemnon's shield] was set as a crown Gorgo [Γοργώ], terrible to see, glaring terribly, and on either side Terror [Δεῖμος] and Fear [Φόβος]. (*Il.* 11.36–7)

And pale fear took hold of me, that august Persephoneia might send out of Hades the head of Gorgo [Γοργείην κεφαλήν], that terrible monster. (*Od.* 11.633–5)

The "Gorgoneion," the representation of Gorgo, may be first attested in the archaeological record in some macabre life-size clay masks from Tiryns, *c.* 700. Thereafter the motif of the woman's face with wide mouth, fangs, and snakes for hair appears more and more on Protocorinthian vases and other objects, and its presence in Homer has prompted insistence on the lateness of the passages where it occurs and of the poet who composed these verses.[81] Lorimer referred to "the certainly interpolated mention of

[77] Desborough, 1956: pl. 34a. [78] Marinatos, 1936: 259, fig. 23.
[79] Levi, 1931: 35, figs. 13 (55), 39. Cf. Jantzen–Tölle, 1968: 96.
[80] Cf. Jantzen–Tölle, 1968: 96.
[81] Tiryns masks: Hampe, 1936: 61–7, pl. 40. See also Howe, 1954: 213, no. 27; Riccioni, 1960; Fittschen, 1969: 16, no. 34; 127; 130, no. 646; 153ff. Review of literature in Buchholz, 1980: 53–6.

the Gorgoneion in the description of Agamemnon's shield,"[82] and W. Burkert would evidently consider assigning the whole Homeric corpus to the seventh century because of these references.[83]

The origin of Gorgo in classical iconography is, however, not clear enough to establish a *terminus ante quem*. The classical iconography of the Gorgoneion may even descend from Minoan religion, for a recent find at Knossos includes "a *gorgoneion*, remarkably comparable to later Greek rendering, with wild, staring eyes, large nose and protruding tongue" on a LM Ib (1500–1450 B.C.) cup-rhyton.[84] Such Eastern bogeys as Pazuzu could have played a part in the revival of the image in the Late Geometric.[85] Yet Gorgo in Homer is a name, without clear iconography. Companion to Fear, Strife, Strength, and icy Attack, Gorgo is a bugbear, a terrifying being, a denizen of folklore. Throughout Greek religion Gorgo personifies the universal fear of the evil eye. For this reason Hektor's eyes are compared to Gorgo's, and Gorgo's stare is "dreadful." Of her appearance Homer says only that she is a head with staring eyes. Painters of apotropaic "eye cups" explicitly connect Gorgo and the evil eye when, like Andokides, they represent on the same vessel wide, staring eyes and the Gorgoneion.[86]

At some early time the name Gorgo was attached to the representation of a snaky, fang-toothed monster. On the Eleusis amphora of 670 B.C., Gorgo the snaky, fang-toothed monster has already been identified secondarily with Medousa of the Perseus legend.[87] In literature, even earlier, Hesiod made the same identification, telling how Keto and Phorkys begot "the Gorgons, who dwell beside famous Okeanos, at the edge of night... Stheino and Euryale and Medousa" (*Theog.* 274–6).

We do not find allegorical figures such as Fear, Strength, and icy Attack represented in Greek art until the fifth century, yet no one would place the

An early Gorgon face appears on a clay metope from the temple of Apollo in Thermos, *c.* 625, companion piece to a metope showing Perseus fleeing with the wallet (Schefold, 1964 (the date of the German edition; all references will be to the undated English translation)): pl. 18. In sculpture the Gorgoneion first appears on the pediment (*c.* 590) from the temple of Artemis on Kerkyra, explicitly connected to the myth of Perseus by the presence of Pegasos and Khrysaor (Schefold, n.d.: fig. 16).

[82] Lorimer, 1950: 481. K. Furtwaengler first made the argument in Roscher s.v. "Gorgoneion" and it is commonly repeated, as recently by Halm-Tisserant, 1986.

[83] Cf. Burkert's remarks on a paper by J. Schäfer, in Hägg, 1983: 82.

[84] Warren, 1984: 49 (my thanks to W. G. Moon for the reference).

[85] See Giuliano, 1959/60; Boardman, 1968: 37ff.; also Karagiorga, 1970; Culican, 1976; Floren, 1977; Boardman, 1980: 79.

[86] E.g. Boardman, 1974: fig. 177 (1,2,3).

[87] Schefold, 1964: pl. 16. For iconography of Perseus killing Gorgo, see Hopkins, 1934; Goldman, 1961.

Iliad in the fifth century on those grounds.[88] We cannot at present untangle the relation between the iconography of the classical Gorgo and the Bronze Age snake-goddess, and we cannot be sure what Homer had in mind by "Gorgo," except that "Gorgo" and "head of Gorgo" belong to the awesome armament of man and god. There are no *termini* here.

The alleged description of hoplite tactics

There is an example at *Il.* 13.130–3:[89]

> And very much like a wall did they array themselves, fencing (φράξαντες) spear by spear, long shield by layered long shield; buckler pressed on buckler, helm on helm, man on man; and the horse hair crests on the bright helmet-ridges touched each other as the men nodded, so close did they stand beside each other.

Descriptions such as this, and the fact that the word φάλαγξ, usual in later Greek to describe a line of heavy-armored hoplite soldiers, occurs in Homer thirty-two times, used to be quoted as evidence that Homer (or his interpolators) had seen hoplite fighting.[90] Ironically, an argument once fashioned to establish the lateness of Homer can help, turned around, to support the opposite view, and be of use in establishing a tentative *terminus ante quem*.

Hoplite warfare: to fight in a line side-by-side with one's companions, heavily armored with cuirass, helmet, greaves, and a small shield fixed to the forearm by two straps, which itself can serve as a weapon; each man armed with a single heavy spear, obedient to a plan of action based on preserving the integrity of the line while shattering that of the enemy; the glorification of one's city before the glorification of oneself – none of this, *sine qua non* of hoplite warfare, is known to Homer. The word *phalanx* does not make a hoplite.[91] Men fighting side-by-side are attested pictorially even from the early Mycenaean period.[92] Homer's warriors fight for themselves, dreading that their *timē* may be lost in the anonymity of a mob. Homer never mentions the technological *sine qua non* of hoplite warfare, the ἀντιλαβή, a handgrip fixed to the inside of a shield's rim and used together with an arm band; the Homeric shield is always carried by

[88] Cf. Hampe (1936: 62): "Die Beschreibung vor Eris, Alke, Ioke, Deimos, Phobos, Gorgo, 'ohne von dem Wie und Wo etwas zu sagen' [he quotes Furtwaengler in Roscher], ist nicht Beweis dafür, dass diese Verse eingeschoben wurden, sondern Bestätigung dessen, dass der Dichter frei erfand. Diese dichterische Erfindung wurde Anregung für die spätere Bildkunst!"

[89] Cf. also, *Il.* 12.105; 13.145–52; 16.211–17; 17.354–5.

[90] Höckmann, 1980: 316.

[91] Cf. Kirk, 1968: 113–14. For the following, cf. Höckmann, 1980: 315–19.

[92] On a battle scene from the fourth shaft grave at Mycenae. See Buchholz, 1980: fig. 63.

a strap, a τελαμών thrown over the shoulder. The ἀντιλαβή made hoplite warfare possible because it enabled the warrior, holding his shield firmly overlapped with his neighbor's, to create an attacking or defensive wall. Nor, in connection with fighting in "phalanges," does Homer mention the θώρηξ, the "corselet," essential to hoplite armor.[93]

According to A. Snodgrass the armor associated with hoplite warfare did not appear all at once, but was introduced piecemeal between 750 and 700 B.C. By 675 we can be sure of the existence of the hoplite warrior and his characteristic manner of fighting.[94] Since Homer, who is obviously interested in military matters, does not appear to know anything about hoplite armament or tactics,[95] we should, on this criterion, place him before *c.* 700 B.C., at least, and probably before 750 B.C.

The practice of sending home the ashes of the dead

This is mentioned only once, in a speech of Nestor (*Il.* 7.332–5):[96]

> We shall gather to bring hither the corpses on wagons drawn by oxen and mules; and we will burn them a little way from the ships, that each man may bear homeward the bones to his children, when we return to our fatherland.

F. Jacoby saw in this passage one of the "late" elements in Homer, arguing that the first time a Greek ever sent home the ashes of the dead was in Athens in 464 B.C.[97] However, we may not be so well informed about the funeral practices of a Dark Age attacking army in the field, as reported by an imaginative poet. To carry home ashes of the dead is logical for an army abroad practicing cremation. In two places Homer describes the preservation of the bones of Patroklos in a jar against the day when Akhilleus dies (*Il.* 23.252–3 and *Od.* 24.76–7). Presumably Akhilleus would have taken these ashes home, were he not himself destined to die at Troy.[98] There is no chronological information in this detail.

[93] He describes the corselet in other contexts. See Catling, 1967: 74–83.

[94] Lorimer had put the introduction of hoplite tactics *c.* 700 B.C. (1950: 462). A bronze helmet and cuirass found in a grave at Argos in 1953, dated *c.* 720, would, however, be suitable to hoplite warfare. For a modern view: Snodgrass, 1965a, answering Lorimer, 1947. That there was a "hoplite reform" has now been seriously called in question: see Latacz, 1977, and Morris's discussion (1987: 196–205), with bibliography.

[95] See further: Lorimer, 1950: 463–4; Snodgrass, 1965b; Detienne, 1968.

[96] Aristarkhos athetized lines 334–5.

[97] Jacoby, 1944: 37ff.; Page, 1959: 323. Even Kirk (1960: 195) agrees that this is the only certain Postgeometric reference in Homer. Are these lines, then, supposed to be interpolated in the fifth century? For the genuineness of the lines, cf. Mylonas, 1961–2: 319; Andronikos, 1962: 50.

[98] Cf. Andronikos, 1968: 31.

The procession to place a robe on a seated statue of Athene in the Trojan citadel

With sacred cry the women, all of them, raised their hands, and Theano, who had beautiful cheeks, took the robe and placed it upon the knees of fair-tressed Athene... (*Il.* 6.301–3)

Seated statues of deities were once thought to be Postgeometric. But in the eighth century there was a seated statue of Athene in her temple on Lindos.[99] Seated statues of gods were also known in the Mycenaean period and on Submycenaean Cyprus.[100] There is no criterion for dating here.

Summary

Eleven of the thirteen items often cited as being datable yield, on close examination, no precise information about Homer's *floruit*: (1) the spear, (2) the chariot, (3) Helen's basket, (4) free-standing temples, (5) cremation, (6) Phoenicians, (8) Odysseus' brooch, (9) Athene's lamp, (10) the Gorgoneion, (12) sending home the ashes of the dead, (13) the robe on the seated statue. None of these items disagrees, however, with a date of sometime in the late ninth or eighth century, an impression strengthened by Homer's ignorance of hoplite fighting (11) – this could place him before the mid-eighth century – and by his ignorance of writing (7) – this could recommend a still earlier date, assuming that Homer does not consciously suppress knowledge of writing in the way that his heroes avoid iron weapons or eating fish: but his handling of the Bellerophon story argues strongly against this. No object, practice, or social reality is necessarily later than 700 B.C., an extraordinary fact when we consider how many have assumed, and assume, the poems to be rife with interpolations.[101]

Let us now turn to our second internal category of approach, the language of Homer.

[99] Lorimer, 1950: 443–4.

[100] Young, 1958: pl. 99; Schaeffer, 1952: 371ff.; Kirk, 1960: 196.

[101] Except for the "naive Unitarians," as E. R. Dodds (1968: 11) called those like Scott, Drerup, and Sheppard who "held a fundamentalist faith in the integrity of the Homeric Scriptures," whose "religion forbade them to make any concession whatever to the infidel [i.e. the thoughtful separatist]... "

II. IS THERE ANYTHING ABOUT THE LANGUAGE OF THE *ILIAD* AND THE *ODYSSEY* THAT CAN BE DATED?

Here it must be frankly recognised that as far as establishing an *absolute date* for the poems [of Hesiod] is concerned, the contribution which the linguistic evidence can make is very limited indeed. (G. P. Edwards)[102]

Much effort has been devoted to dating Homer through analysis of his language.[103] Although such studies have failed to create an absolute chronology, they have uncovered such useful information about the perplexing linguistic amalgam of the Homeric dialect as the effects on the vulgate of the failure of the original text to distinguish between long and short ε and ο; the inconsistent treatment of original *digamma*, which in 3,000 places has a metrical effect and in 600 does not;[104] haphazard vocalic contraction; and the sometimes present, sometimes absent Ionic shift from long α to η.[105] Some find instances of Mycenaean Greek in Homeric language,[106] though others do not.[107] G. P. Shipp has shown that so-called "late" forms, those established as such by loss of *digamma*, Ionic shift, and contraction, and designated "*récent*" in P. Chantraine's *Grammaire Homérique*, are concentrated in the similes.[108] Unfortunately, the similes cannot be later than Homer himself, who in them expresses his poetic personality most clearly.[109]

Linguistic studies of Homer have uncovered strata in the archaeology of Homer's language, but can say nothing about the absolute date of the most recent layer. Sophisticated studies by A. Hoekstra, G. P. Edwards, and R. Janko[110] have highly refined our methods for reconstructing a relative chronology, and suggest that traditional relative chronology is correct: first came the *Iliad*, then the *Odyssey*, then Hesiod's *Theogony*, then *Works and Days*, with the Hymns and Cyclic poems standing in ambiguous relation to Hesiod. But we do not learn by such methods how much time separates one poem or poet from the next, whether ten years, fifty years, or a hundred years;[111] nor can features identified as linguistically "late" be assigned to an absolute date, because we have no

[102] G. P. Edwards, 1971: 199.

[103] Cf. especially Cauer, 1921–3: ch. 6; Nilsson, 1933: ch. 4; Chantraine in Mazon, *et al.*, 1967: ch. 4. [104] Palmer, 1968: 21. [105] See Risch, 1955.

[106] Ruijgh, 1957; Chadwick, 1958; Page, 1959: 153–4; Durante, 1972, 1974.

[107] Shipp, 1961; Gallavotti, 1968; Heubeck in Heubeck–West–Hainsworth, 1988: 10.

[108] Shipp, 1953: 19–63. [109] For the point, see Chantraine, 1955.

[110] Hoekstra, 1965; G. P. Edwards, 1971; Janko, 1982.

[111] Or even whether such differences truly reflect differences of date; we only assume that they do.

independent dated material with which to compare them.[112] Nonetheless, from the evidently clear precedence in absolute time of Homer over Hesiod, we may establish a tentative *terminus ante quem* from this criterion of *c.* 730–700 B.C., the probable date of Hesiod (above, 186).

III. WHAT ARE THE EARLIEST OUTSIDE REFERENCES TO HOMER?

Possible outside references to Homer, which might provide a *terminus ante quem* for the poet, are of two kinds, *written* and *pictorial.*

Written references

...a special and elaborate point being made in epic language about a cup belonging to one Nestor, by a person who had no knowledge of the epic Nestor and *his* cup, would be such an unbelievable coincidence that I am somewhat puzzled at its having been suggested in earnest. (P. A. Hansen)[113]

References to Homer in the archaic poets of the seventh century are of little use in establishing *termini* (see Appendix II). Fortunately the epigraphic record would appear to provide our long-sought *terminus ante quem* for Homer, if we accept that the Nestor of the Pithekoussan "Cup of Nestor," dated to *c.* 735–20 B.C., is not only the epic Nestor, as P. A. Hansen rightly insists, but the very Nestor of Homer's *Iliad* (above, no. 59). If we deny to the composers of the inscription knowledge of Homer's *Iliad*, we must assume that their knowledge of epic Nestor and his cup was received from a poet completely unknown to us, who shared however the same tradition as Homer. I find such a view unpersuasive;[114] it fails to recognize the subtle humor in Homer's description of Nestor's Cup (*Il.* 11.632–7). Subtle humor is not traditional, but belongs to the

[112] Cf. Kirk, 1962: 200–1: "It is impossible to distinguish accurately Homeric linguistic characteristics of about 950 from those of about 750" and "with the probable exception of a very small number of organic Atticisms (which entered the poems after the eighth century and probably after the seventh, but which could be of earlier origin in themselves) there are no objective linguistic criteria whatever for determining whether a relatively late element in the Homeric language is to be dated around 800 or round 650."

[113] Hansen, 1976: 42. Cf. Lucchini, 1971: 84. For the contrary position: Dihle, 1969: 258.

[114] Cf. Heubeck, 1979: 114: "Die hier vorgeschlagene Deutung impliziert die kaum zu umgehende Annahme, dass der Mann aus Ischia, der diesen Dreizeiler verfasst und neidergeschrieben hat, die Stelle der Ilias, in der vom Nestor-Depas die Rede ist, vor Augen gehabt oder besser, wie wir meinen: das Epos insgesamt gekannt hat; dass bereits in der vorhomerischen Dichtung von diesem berühmten Becher die Rede gewesen sei und dass der Dichter auf eine vor Homer liegende dichterische Gestaltung Bezug genommen habe, ist dagegen ganz unwahrscheinlich."

individual singer. "Nestor's Cup" simply does not look like a topos. It is a poetic *jeu d'esprit* in the wry style of Homer, who underlines old Nestor's love of tippling by describing his cup in mock-heroic fashion. Homer sang a parody and the Pithekoussan symposiasts, evidently, aped it. After all, the only "Nestor's Cup" we know about is Homer's "Nestor's Cup." The Pithekoussan find would appear, therefore, to establish a *terminus ante quem* of *c.* 735–720 for the *Iliad.*

Let us now turn to the complicated problem of the earliest pictorial allusions to epic. If we can establish that Homer's poems have inspired datable pictorial representations, we will gain support or clarification for our *terminus ante quem.*

Artistic representations

In Minoan and Mycenaean art representations which we can understand as mythological are completely unknown.[115] Beginning about 1000 B.C., after the collapse of the Mycenaean kingdoms, Greek pottery began to be decorated in the style called Protogeometric, with some figured representations (such as horses), followed in ninth and eighth centuries by the more elaborate Geometric style. This style, in its rigorous Early and Middle phases, gave up figured representations entirely. The Geometric style is characterized by decorative patterns of checkerboards, triangles, wavy lines, concentric circles, cross-hatches, swastikas, lozenges, and the meander pattern, set out in strict registers inscribed horizontally around the pot. Then in the eighth century, especially on Attic pottery, appeared stylized figures of men and animals in scenes of everyday life, "animals and their encounters, funeral feasts, dances, contests, processions and battles on land and sea."[116] By the late eighth century we find scenes that may illustrate Greek myth or legend.

Although our identifications of these figured scenes with known myths and legends are often provisional and dubious, the introduction of figured scenes in the Late Geometric period is in itself a revolution in Greek art. When we consider the probable origin of many Greek legends and myths in the Mycenaean Age and their transmission through the Dark Ages,[117] the absence of pictorial representations of Greek traditional tales until the Late Geometric, and the prominence of such themes after 700 B.C., poses

[115] For the alleged representation of Europa and the bull in glass paste from Dendra, see Hampe, 1936: 67–9, fig. 29.

[116] Schefold, n.d.: 22.

[117] Nilsson, 1932. That Greek legend *originated* in the Bronze Age – whence descend the names of the great heroes and the stories of war at Thebes and Troy – does not detract from the fact that the social and material features of Homer's world belong to his own day.

something of an enigma in the history of ancient art.[118] Of course we cannot expect a period which sees art either as abstract design or as functional (e.g. funeral vases) to illustrate stories. Nonetheless we need to explain, if possible, the revolutionary adoption of the narrative mode in Greek painting in the late eighth century B.C.

Let us briefly examine the earliest essays toward mythical narrative in Greek art, to see if they can yield information about Homer's place in history. We shall not consider any representation later than 650 B.C. Since our purpose is to draw general conclusions, we will avoid arguing the validity of this or that identification, and allow those generally held probable,[119] especially representations supposed to be inspired by (a) the *Iliad*, (b) the *Odyssey*, and (c) the Cyclic poems.

Representations possibly inspired by the Iliad

From abundant examples of figured Greek art before 650 B.C. four subjects may be inspired by the *Iliad*:

(1) A curious two-bodied creature, often taken for the Aktorione-Molione, the Siamese twins who figure in the saga of Nestor,[120] appears over a dozen times in Late Geometric art, mostly on vases and Boiotian fibulae.[121]

(2) Queen Hekabe and her maidservants bearing a robe for Athene (*Il.* 6.293–303) may be represented on a relief pithos of the Tenos type from *c.* 675–50.[122]

(3) One man in a procession of warriors on an early Attic pot stand from *c.* 650 is explicitly identified as ΜΕΝΕΛΑΣ.[123]

[118] A single exception to the rule *nihil mythicorum* from the beginning deep into the Geometric period might be the famous Protogeometric Lefkandi centaur from the ninth century. See Desborough–Nicholls–Popham, 1970; Popham–Sackett–Themelis, 1979–80: pls. 251, 252. Cf. Canciani, 1984: 63.

[119] Basic studies are: Hampe, 1936; Schefold, n.d.; Fittschen, 1969; Kannicht, 1977: 279–96; Coldstream, 1977: 352–6; Hampe-Simon, 1980: 81–3; Snodgrass, 1982; Canciani, 1984: 47–62.

[120] *Il.* 11.750, 23.638–42; also Hesiod, fr. 17b, Merkelbach–West.

[121] Canciani, 1984: 48, for bibliography of the pieces. The objections to this identification are so strong that I only include it (and count it once) because it is often repeated. The two-bodied creature seems to be a convention of Geometric art, not a specific reference to myth: see Boardman, 1970: 501; Boardman, 1983: 25–6. The identification was first made by Schweitzer, 1922: 17ff., 107ff. See also Hampe, 1936: 42ff.; Ahlberg, 1971: 240–52; Snodgrass, 1980: 76–7; Coldstream, 1977: 352–4. Boardman's skepticism is shared by Courbin, 1966: 493–4; Fittschen, 1969: 68ff.; Carter, 1972: 52–3; Walter-Karydi, 1974; and myself.

[122] Hampe, 1936: 42, pls. 36, 37; Schefold, n.d.: 45, pls. 30, 31; Fittschen, 1969: 172–3, no. SB 74

[123] Hampe, 1936: 70, fig. 30; Schefold, n.d.: 44, fig. 13; Fittschen, 1969: 175, no. SB 80.

(4) Three living warriors, one of whom holds up what may be a sword and scabbard, and one dead warrior on a Late Geometric pot, *c.* 700, may portray the end of the duel between Hektor and Aias (*Il.* 7.273–312).[124]

Representations possibly inspired by the Odyssey

Five scenes seem to be inspired by the *Odyssey*:

(1) A shipwreck on an Attic Late Geometric oinochoe, *c.* 750–700, shows one man riding on a keel, while others drown, perhaps a representation of Odysseus' shipwreck after leaving the island of Helios (*Od.* 12.403–25).[125]

(2–4) Three vases from *c.* 675–50 represent the blinding of Polyphemos: one from Eleusis,[126] one from Argos,[127] and one from Caere.[128]

(5) A Protoattic vase of *c.* 660 from Aigina shows Odysseus clinging to a ram, escaping from the cave of Polyphemos.[129]

Representations possibly inspired by the Cycle

Other early artistic representations seem to come not from the *Iliad* or *Odyssey*, but from the lost poems *Kypria*, *Aithiopis*, *Ilias Mikra*, and *Iliou Persis*. These poems, of which only about 120 lines survive, are called "Cyclic" by the Alexandrians on the assumption that they were created in a circle (κύκλος) around the *Iliad* and *Odyssey*, to fill in gaps in Homer's story. By general agreement they are later than the *Iliad* and *Odyssey*. The date, therefore, of the earliest scenes inspired by the Cycle can furnish a *terminus ante quem* for the Homeric poems.[130]

[124] So K. Friis Johansen, 1961. Kirk thinks the identification possible (1962: 284). The first man with the shield will be Aias; the second man, with a staff, Idaios; the fourth man, with the scabbard, Hektor, who has lost his shield and offers his sword to Aias. But who is the third man, the dead man? Such labored explanations contradict the direct appeal essential to a narrative tradition in decorative art.

[125] Hampe, 1952a: 27–30, figs. 7–11. Or is it just a shipwreck, as I imagine? K. Fittschen (1969: 49), N. Coldstream (1968: 76, no. 3), and J. Carter (1972) cautiously accept the Homeric identification .

[126] Schefold, n.d.: 50, pls. 1, 16; Fittschen, 1969: 192, no. SB 111. See for the topic Fellmann, 1972.

[127] Schefold, n.d.: 48, fig. 15; Fittschen, 1969: 192, no. SB 112.

[128] Fittschen, 1969: 192, no. SB 113; Simon-Hirmer, 1976: pl. 19. There is still another representation from shortly after *c.* 650 on a bronze piece from the Samian Heraion: Fittschen, 1969: 192–3, no. SB 114.

[129] Cook, 1934–5: 189, pl. 53; Schefold, n.d.: 50, pl. 37; Fittschen, 1969: 193, no. SB 115.

[130] *Contra* Kullman's argument (1960) that much of the Cycle is earlier than the *Iliad*, see Page, 1961: 205–9. Herodotus may put the Cyclic poets later than Homer or Hesiod (2.53) – unless by

There are about fourteen such representations:

(1) A Protoattic amphora, *c.* 680 B.C., has, perhaps, Peleus giving the child Akhilleus to the centaur Kheiron. This could come from the *Kypria*, which told of events precedent to the *Iliad*.[131]
(2) Three women fleeing a man who holds on to one of them, from a Cycladic amphora of *c.* 650, could represent the wrestling match of Peleus and Thetis, from the *Kypria*.[132]
(3) Two impressions from the same stamp, the first from Samos and the second from Pithekoussai *c.* 700, show a warrior carrying a dead man on his shoulder. This could be Aias carrying Akhilleus from the field, a scene famous in the *Aithiopis*, which told of Trojan events after the death of Hektor.[133]
(4) A similar scene appears in decoration on the dress of a woman stamped on a fragment of a pinax, *c.* 650, in the Naples museum; a second example from this same stamp was found at Sybaris.[134] The identification of these early scenes with the Iliadic description is based on the similar iconography of a labeled scene that appears on the François krater of *c.* 570 B.C.[135]
(5) An island "Melian" amphora, *c.* 650 B.C., shows two men dueling; a set of armor stands between them; a women stands on either side of the scene. The scene could represent Akhilleus and Memnon in the presence of Thetis and Eos and be taken from the *Aithiopis*; or it could be Aias and Diomedes at the funeral games of Patroklos, dueling for the armor of Sarpedon (*Il.* 23.798–825).[136]
(6) The suicide of Aias, from the *Little Iliad*, which told of events from

οἱ δὲ πρότερον ποιηταὶ λεγόμενοι he means Orpheus, Musaios, and the like – and Alexandrian tradition agreed. Aristarkhos called all poets after Homer νεώτεροι (see Severyns, 1928). J. A. Notopoulos rightly argued (1964) that the priority of Homer cannot be established through supposed examples of mimesis of Homer in the Cyclic poets, because such examples are reflections of a shared tradition of oral verse making (cf. Appendix II). But Notopoulos's efforts to place such poets as Arktinos of Miletos, who composed the *Aithiopis*, earlier than Homer and Hesiod are unconvincing. For a reconstruction of the Cyclic poems, Huxley, 1969: 123–73.

[131] So Schefold, n.d.: pl. 29a; Fittschen, 1969: 115, no. SB 12; Canciani, 1984: 54.

[132] Canciani, 1984: 54, fig. 17. But Fittschen (1969: 169, no. SB 67) puts the vase at 650–625 B.C.

[133] Hampe, 1936: 72, fig. 31, pl. 34; Fittschen, 1969: 179, no. SB 88; Coldstream, 1977: 228, fig. 75d. The wide dispersal of ware made from the same stamp at the end of the eighth century parallels the wide distribution of early writing.

[134] Hampe, 1936: 72, pl. 35; Schefold, n.d.: 28, 47, pl. 32b; Fittschen, 1969: 180, no. SB 90; Canciani, 1984: 56.

[135] Simon-Hirmer, 1976: pl. 51.

[136] Hampe, 1936: 81; Schefold, n.d.: 46–7, pl. 10; Friis Johansen, 1967: 279–80, no. 13; Fittschen, 1969: 178, no. SB 86; Canciani, 1984: 56.

the judgement of the arms of Akhilleus to the sack of Troy, may be the subject of a Protocorinthian aryballos of *c.* 700–675, which shows a man throwing himself on his sword.[137]

(7) The Trojan Horse, recognizable by the windows in its belly and small wheels fixed to its feet, is certainly represented on a Boiotian bronze fibula from *c.* 700 B.C. This scene may be from *Iliou Persis* or the *Odyssey* (8.511–13).[138]

(8) The opposing half of the same sickle-shaped fibula shows Herakles fighting the Hydra.

(9) Another example of the Trojan Horse, again with wheels and windows, is found on the neck of a celebrated Cycladic relief-pithos, *c.* 670, from Mykonos.

(10) *Iliou* Persis is otherwise represented on the vase by two metopic bands representing various acts of mayhem, including a man who rends a child from its mother, perhaps Astyanax and Andromakhe, and a man with a sword approaching a veiled woman, perhaps Menelaos and Helen.[139]

To the *Nostoi*, which told of the heroes' returns after the war, belong the stories of the murders of Agamemnon and his concubine Kassandra by Klytaimnestra and Aigisthos and the revenge of Orestes, both events also alluded to in the *Odyssey*.

(11) A woman holding another woman by the hair and stabbing her through the belly, from a bronze plate from the Heraion at Argos, *c.* 700–650, may be Klytaimnestra killing Kassandra.[140]

(12) A Theban relief-decorated amphora, *c.* 700–675, shows a man, who may be Orestes, holding the hand of a second man, who could be Aigisthos, while the first man stabs the second with a sword or spear; with his other hand the second man takes a woman's hand (Klytaimnestra's?).[141]

(13) A clay relief from Gortyn, *c.* 675–650, shows a man with scepter seated on a throne, while a woman, to one side, seizes his hand. A man, standing to the other side and behind the throne, apparently stabs the seated man in the neck. Perhaps this is the murder of Agamemnon.[142]

[137] Fittschen, 1969: 181, no. SB 93.

[138] Hampe, 1936: 50–1; Schefold, n.d.: pl. 6a; Fittschen, 1969: 182, no. SB 98; Hampe–Simon, 1981: fig. 116; Canciani, 1984: 58–9, fig. 21a.

[139] Schefold, n.d.: pls. 34, 35; Friis Johansen, 1967: 26ff., figs. 1, 2; Fittschen, 1969: 182–3, no. SB 99; Hampe–Simon, 1980: 76, figs. 116–17, 120, 122.

[140] Schefold, n.d.: pl. 32c; Fittschen, 1969: no. SB 106; Hampe–Simon, 1980: fig. 123.

[141] Schefold, n.d.: pl. 36b; Fittschen, 1969: no. SB 104.

[142] Schefold, n.d.: pl. 33; Fittschen, 1969: no. SB 110.

(14) A Protoattic krater, *c.* 680–670, shows three figures (and the hand of a fourth): a bearded man, perhaps Orestes, coming from behind to threaten another bearded man, perhaps Aigisthos, and a woman, perhaps Klytaimnestra; without turning around, Aigisthos(?) grasps Orestes(?) by the chin, in a gesture of supplication.[143]

Representations possibly inspired by other sagas

From the same period we may add other representations which seem to reflect saga to the ten or so representations possibly inspired by the *Iliad* and the *Odyssey* and to the roughly fourteen inspired by the Cycle. According to K. Fittschen,[144] from the Herakles saga come five representations of the Hydra; one probable and two possible of Geryon; three of Nessos; and five of Pholos and the centaurs. From the Perseus story come four representations; from the Bellerophon story, three or four; from the Theseus saga, two. Fittschen also identifies eighteen representations of gods. Only one, the birth of Athene fully armed from the head of Zeus (cf. Hes. fr. 343 Merkelbach–West), contains certain narrative content.[145]

Summary and observations[146]

Beginning in the eighth century, there appeared on Greek pottery, especially Athenian, stylized portrayals of "everyday life" – funerals, hunts, battles on land and sea, contests and processions. There is nothing mythological about these scenes, which portray events of contemporary life.[147]

After 725 B.C. there began to appear representations of fabulous beings such as centaurs, bull-men, winged horses, and sphinxes. These biforms,

[143] Schefold, n.d.: pl. 36a; Fittschen, 1969: no. SB 105.

[144] See the chart at the end of the plates in Fittschen, 1969.

[145] Schefold, n.d.: pl. 13; Fittschen, 1969: no. GS 1. [146] Cf. Fittschen, 1969: 199–201.

[147] I cannot agree with A. Snodgrass's proposal that, while lacking specific references to the Greek heroic tradition, Greek Geometric art portrays the "generalized heroic," an archaized world perceived by contemporaries as lying sometime in the past (1980: 65–77). The argument seems to have originated with T. B. L. Webster (1958: 169–70) who thought that the "Dipylon shield," an oblong device with circular cutouts on either side often represented on Geometric figured pottery, was a distorted representation of the Mycenaean figure-of-eight shield preserved on heirlooms or chance finds. Depiction of the Dipylon shield is said, then, to transport the scene into the heroic age, much as archaic language and other archaic and fantastic elements create "epic distance" in Homer. But probably the Dipylon shield was an actual shield of some kind: see Boardman, 1983: 15–36, esp. 27–9.

inspired by Oriental art, were certainly not denizens of the contemporary world. From about this same time comes the earliest certain legendary representation, a small bronze group showing a helmeted man with a sword attacking a centaur, probably Herakles and Nessos.[148] Between *c.* 725 and 700 follow pictures of the Hydra, the Molione(?) (or Geryon?), Amazons, the epic theme of Aias carrying the body of Akhilleus, the Trojan Horse, and perhaps a scene from the legend of Orestes. In the same quarter century the old Geometric decoration and love of scenes of everyday life deteriorated markedly. Beginning *c.* 700 B.C. experiment with narrative best explained by reference to epic poetry rapidly increased; between 700 and 650 B.C. Snodgrass counts 57 scenes from heroic saga.[149]

At nearly the same time a parallel development took place in Greek religion. Old ancestor cult was transmuted into the cult of heroes important in epic.[150] Or new hero-cults dedicated to epic figures were introduced. In Eleusis some Helladic tombs were rebuilt to form a heroön, which has been identified as the Tomb of the Seven (Paus. 1.31.1).[151] In the late eighth century at Mykenai a sacred precinct was dedicated to Agamemnon. A cult of Menelaos and Helen was founded in the ruins of a Mycenaean palace at Therapnai near Sparta. There is also evidence of cult activity near tholos tombs at Menidi in Attica, at Marathon, at Corinth, and in Messenia.[152] The change in cult practice must reflect efforts of local families to proclaim their primacy within the emerging polis by claiming heroic ancestry. These new cults of epic heroes should probably be traced to the same causes as those responsible for the shift in subject matter in Greek art.

It is striking that of the 57 mythic scenes counted by Snodgrass, all but 10 are from sagas other than those preserved in the *Iliad* and the *Odyssey*. Apparently the Cycle and other sagas were better known than the *Iliad* and the *Odyssey*. Why? No doubt written copies of far shorter cyclic poems were cheaper and easier to acquire than the *Iliad* or *Odyssey*. The longest of the Cyclic poems were the *Thebais* and the *Epigonoi* at 7,000 lines each;[153] the others were much shorter. The outlandish expense of a complete *Iliad* or *Odyssey* no doubt contributed to the origin of the so-called city editions (ἀπὸ τῶν πόλεων)[154] after the fifth century – only a

[148] Schefold, n.d.: pl. 4. [149] Snodgrass, 1980: 71. [150] Burkert, 1985: 203–8.
[151] Mylonas, 1953: 81–8. Cf. Burkert, 1981: 34–5.
[152] J. M. Cook, 1953a and 1953b. Snodgrass, 1971: 398–9; Coldstream, 1976: 8–17; Coldstream, 1977: 347, with bibliography. Also, Rohde, 1925: ch. 4.
[153] Reported in *Certamen Homeri et Hesiodi*, lines 255–8 in T. W. Allen, 1912–20: v 235.
[154] Cf. T. W. Allen, 1924: 291.

polis could afford one. The smaller scope of the Cyclic poems also made them more suitable to rhapsodic recitation. Homer's "Odysseus in the cave of Polyphemos" may appear on four extant seventh-century pots because, as a self-contained and compelling episode, it was a suitable excerpt from the *Iliad*. The excerpt was ideal for separate performance from a memorized text.

The revolution in artistic themes which began *c.* 725 B.C. reflects a broad cultural change, the popularization of Greek legend. We ought to tie this change directly to the wide dissemination of written literature made possible by alphabetic writing. The common assumption that Greek legend was always widely known among the Greek people may be inaccurate. As far as we know, the storytellers of preliterate Greece were *aoidoi*, whose numbers could never have been large. The *aoidoi* were oral poets who transmitted the stories to such small, socially exclusive audiences as the kingly courts of Ithaka and Phaiakia. Alphabetic writing, then, separated Greek legend from the legend-bearers, the *aoidoi*, by making possible *rhapsodoi*, reciters of written poetry: the distinction in terms is clear by the fourth century.[155] The rhapsode was nothing more than a man with a good voice and a flair for the dramatic who has learned to read and memorize a text. The rhapsode, unlike the *aoidos*, was indefinitely reproducible. The Peisistratids, to please the Athenian *demos*, insisted on rhapsodic presentations of the entire *Iliad* and *Odyssey* at a reorganized Panathenaia in the late sixth century,[156] a clear example of the new rhapsode serving the *polis* instead of the aristocracy at elite symposia. No doubt genuine *aoidoi* continued to exist in Greece, and occasionally to be recorded in writing, down to at least 600 B.C.,[157] yet it must have been the rhapsodes who spread the ancient legends far and wide among the *demos*, including artisans who worked in clay, paint, and metal. Aristocratic families, jockeying for position in the *polis*, claimed for themselves heroic families now becoming known to all; they instituted cultic observances at ancient tombs. Those newly enriched by the expanded commerce of the late eighth century also wanted pottery with pictures of Theseus, Jason, and the Trojan War. The good-natured far-traveler Herakles especially

[155] See Sealey, 1957: 314–18 for the history of the word ῥαψῳδός.

[156] [Pl.] *Hipparch.* 228B. Good discussions of the so-called Peisistratean recension will be found in Merkelbach, 1952; J. A. Davison, 1962: 219, 238; Sealey, 1957: 342–9; Skafte Jensen, 1980: 128–58; Böhme, 1983; most recently in S. West, 1988: 36–40. Here is no place to discuss this knotty problem; the Peisistratean recension refers to events which took place long after the adapter's work and the taking down of the *Iliad* and the *Odyssey* from the mouth of their composer.

[157] Cf. Sealey, 1957.

appealed to adventuring Greeks of no special birth who lived in distant lands like Italy, where so many vases with themes from the adventures of Herakles are found.[158]

On the basis of outside references to the *Iliad* and the *Odyssey*, we may tentatively reconstruct the following order of events:

the alphabet was invented	*c.* 800 B.C.
the *Iliad* was written down	before *c.* 735–20 B.C. (the date of the "Cup of Nestor")
the *Odyssey* was written down	?
the poems of the Cycle were written down	?
Greek art and cult changes under the influence of traditional tales disseminated by rhapsodic delivery of epic poetry	*c.* 725 B.C.

However, we will want to place the *Iliad*, and its companion the *Odyssey*, as early as we can in this sequence, to allow sufficient time for the subsequent recording of the Cycle and the popular dissemination of traditional tales by means of rhapsodic performance before the appearance of these tales in popular art. Any date later than 750 B.C. would seem quite out of the question for the recording of the *Iliad* and the *Odyssey*, a conservative *terminus ante quem* for the writing down of *Homer's* poems, on this criterion.

Let us ask, finally: What did ancient traditions report about Homer's date?

IV. HOMER'S DATE IN ANCIENT TRADITION

There are two ancient testimonia to the date of Homer. The first is in Herodotus (2.53) where the historian, arguing that Greek gods are taken from Egypt, hence are much older than their popular definition by poets, puts the latecomers Homer and Hesiod a mere – compared to things Egyptian – four hundred years before his own time, καὶ οὐ πλέοσι, "and not more." Herodotus wrote about 450 B.C., so Homer's date should be *c.* 850 B.C.[159]

[158] Moon, 1983a: esp. 101, 109.

[159] Presumably "Homer's date" will mean his *floruit*, which is not the same as the date of the composition of the *Iliad* and the *Odyssey*. The career of a famous singer could span fifty years, while the *Iliad* and the *Odyssey* were written down only one time – or so we assume. If Homer were born in 875 B.C., he could have composed the *Iliad* at age 50 in 825 B.C. and the *Odyssey* at age 75 in 800 B.C., giving him a traditional floruit of "400 years before my [Herodotus'] time."

Wade-Grey has argued that Herodotus' tradition is literally correct, perhaps taken from the Homeridai who, as descendants of Homer,[160] were in a position to know that Homer lived "ten generations" earlier.[161] Reckoning generations at forty years, one convention in ancient traditional chronology, Herodotus came to his figure of "four-hundred years." By reckoning a generation at a more realistic thirty or thirty-three years, however, we may use the same information to reach a date of 300 or 330 years before Herodotus, i.e. 750 or 780 B.C.[162]

Herodotus may, of course, be speaking in an off-hand way, and by "ten generations" mean "about ten generations." Yet a second ancient testimonium gives information which conforms with Wade-Grey's reconstructed date of 750 or 780 B.C. for Homer. According to the Suda, s.v. Arktinos, one Artemon of Klazomenai in a lost work περὶ Ὁμήρου put the birth of Arktinos, composer of the *Aithiopis*, "in the ninth Olympiad, 410 years after the Trojan war."[163] The ninth Olympiad was in 744 B.C., and thus the Trojan war, by Artemon's reckoning, ended in 1154 B.C., close to 1200 B.C., the usual date given in antiquity.[164] Because the *Aithiopis* told of the war at Troy *immediately* after the death of Hektor and was even attached to the *Iliad* by a makeshift line found in some MSS (Ἄρηος θυγάτηρ μεγαλήτορος ἀνδροφόνοιο), the *Aithiopis* must be later than the *Iliad*. Since the *Aithiopis* must have been composed in the late eighth century if its author Arktinos was born in 744 B.C., a floruit of 750 or 780 B.C. would be suitable for Homer.

According to ancient testimonia, all things considered, we should place Homer's floruit at *c.* 850–750 B.C., suggesting a *terminus ante quem* of *c.* 750.

CONCLUSIONS: THE DATE OF HOMER

The coincidence between the earliest writing and the closing of the epic tradition is striking. (D. Gray)[165]

[160] Harp., s.v. Ὁμηρίδαι, quoting Akousilaos and Hellanikos. The Homeridai were a guild on the island of Khios dedicated to reciting Homer's poetry (Pind. *Nem.* 2.1, Pl. *Phdr.* 252b). They also claimed to preserve biographical details about Homer (Pl. *Rep.* 599e) on which the "Lives of Homer" seem to be based. See T. W. Allen, 1924: 42–50.

[161] Wade-Gery, 1952: 25.

[162] For the reckoning of generations as forty years: Hdt. 3.22.4 (Persian); 1.163.2 (Iberian); 3.23.1 (Ethiopian) – the last two refer to lifetimes of 120 years. Generations were also reckoned at thirty years: Hes. *Erg.* 695–7; Solon F 19; Hdt. 2.142,2. Cf. Jeffery, 1976: 35, 38 note 2. On converting numbers which seemed to have been reckoned on a forty-year basis, Burn, 1960: 403ff.

[163] *FrGrHist* 1116 32.443. For discussion of the Suda passage, see Unger, 1886.

[164] The correspondence between Artemon's two dates, one based on the Olympiad and the other based on a popular date for the Trojan war, precludes textual corruption and enhances Artemon's credibility.

[165] In Myres, 1958: 292.

A question of prime importance for the dating of Homer must be when did the idea of writing down epic songs come and under what circumstances? (A. B. Lord)[166]

The information on the date of the recording of the *Iliad* and the *Odyssey* is more diffuse than we would like. We can take our *terminus post quem* from the introduction of the alphabet at *c.* 800, but we are less able to establish a good *terminus ante quem*. Much that seemed useful has proved questionable, archaeological information especially so. We may summarize our *data* as follows.

The evidence from the text of the *Iliad* and the *Odyssey* consists of:

	terminus ante quem
no mention of hoplite tactics	before *c.*700(?)
no mention of inhumation	before *c.* 700(?)
no mention of literacy	before *c.* 750(?)
internal linguistic features	no information
comparative linguistic features (i.e., Homer's relation to Hesiod)	before *c.* 730–700(?)

The evidence from outside references and from ancient tradition consists of:

the "Cup of Nestor"	before *c.* 735–720 B.C.
artistic representations	before *c.* 750
ancient traditions	*c.* 850–750

On the basis of the previous discussion, therefore, we might conclude that Homer composed the *Iliad* and the *Odyssey* sometime between 800 and 750 B.C. While there is no reason to disagree with a common view that he composed the *Iliad* before the *Odyssey*, there is scant evidence, and that solely linguistic, that he did. Even a linguistic "evolution within the life-span of a single poet will account for the slight, but perceptible and consistent, dictional developments displayed by the *Odyssey* relative to the *Iliad*."[167] *When* in the fifty-year period 800–750 B.C. Homer composed his poems, our evidence does not show. There is nothing against his poems being recorded at the very beginning of the period, and the oft-repeated and plausible suggestion that the *Odyssey* reflects early Greek colonial activity in the far West[168] will be consistent with a dating of the

[166] Lord, 1953: 130.

[167] Janko, 1982: 191. In fact Janko (1988: 119) prefers "to regard both epics as orally dictated compositions by the same bard."

[168] E.g. Boardman, 1980: 165.

Odyssey closer to 800–775 B.C. than 750 B.C.: the mostly fantastic world of Odysseus' travels is appropriate to a geography little known, while it is also a description of dangerous seafaring in the far West. By any reckoning Homer's poems were recorded in the very earliest days of Greek literacy.

5

Conclusions from probability: how the *Iliad* and the *Odyssey* were written down

"What was he, what was his trade, what did he do?"...

"Nothing, he had no trade, nothing but his horse and his arms and he went about the world. He was blind in one eye and his clothes and arms were of the finest. And he went thus from town to town and sang to everybody to the gusle."[1]

The real riddle is who wrote down the poems and why. (A. B. Lord)[2]

Homer's floruit falls within the first half of the eighth century. He is perhaps an exact contemporary of the adapter. At the very least, he lived within fifty years of the invention of an idiosyncratic writing that cocks the ear to fine distinctions of sound and is used in its earliest remains to record hexametric verse. If the alphabet was fashioned to record the poet Homer and no other, we can account for the coincidence in time. If we believe that the adapter restructured Phoenician writing not in order to record Homer specifically, but in order to record "hexametric verse in general," meaning a poet or poets of whose existence and achievement all memory has been lost, we must admit that at the same time, or within a generation and a half at most, the new writing was also used to write down Homer.

We ought to have a clear picture of Homer. What sort of artist was he? How would he appear to his contemporaries and to himself? What qualities in the poet Homer could have made him a figure likely to inspire the adapter?

WRITING AND TRADITIONAL SONG IN HOMER'S DAY

They [modern Balkan oral poets] work with habituated instincts of rhythm; they are unaware of contradictions as they sing; they add or subtract as the mood dictates; they vary the song with each recording. (J. A. Notopoulos)[3]

[1] Parry–Lord, 1953: 61. [2] Lord, 1963: 196. [3] Notopoulos, 1964: 48.

I assume that the *Iliad* and the *Odyssey* were composed by the same poet, a man called *Homeros*. I assume that he was a singer of tales (*aoidos*, a bard), and that he inherited a long and rich tradition of heroic poetry. I assume that he composed the two great poems with the help of techniques and materials developed in the course of the tradition by many previous singers. I assume that his poems have come down to us substantially in the form in which they were composed... I believe that Homer composed the poems without the aid of writing, that he gained great kudos through their recitation, and that to ensure their preservation he either wrote or dictated a definitive version of them. (J. V. Luce)[4]

We have learned a good deal in this century about the Greek *aoidic* tradition as preserved for us fragmentarily in the works of Hesiod, Homer, and the Homeric Hymns.[5]

Sometime in the history of the Greek language a special vehicle emerged for the oral expression of narrative – the dactylic hexametric line. The essence of the line was an unconscious rhythm organized by the alternation of long and short syllables in a flexible but predictable pattern. The rhythm of the Greek dactylic hexameter is oddly complicated when compared with the rhythms of other known oral poetries. Its origins are something of a puzzle, because ordinarily in the Indo-European tradition a metrical line is based on syllable count, while the hexameter allows the regular substitution of two short syllables for one long syllable, which has even led to the suggestion that the pattern may be borrowed from another language.[6] The rules of the hexameter's operation were analogous to, but different from, the rules that govern other forms of speech. The unit of communication was not, however, the "word" so much as phrases, whole lines, or groups of lines, though how the *aoidos* actually fitted one formulaic phrase to another in order to create his lines is not clear.

Repetition gives hexametric poetry a charming, formal air. Preset expressions evoke preset aesthetic responses. The "wine-dark sea" automatically evokes the danger, mystery, and beauty of the sea without the audience's need to pause and visualize a new image. The repetition of phrases, lines, and whole passages also reassures the audience through familiarity while it allows the listener to relax and refresh his attention. It serves the communication needs of the bard by delivering to him preset bundles of words already suited to the complicated demands of meter. As

[4] Luce, 1975: 10.

[5] Lord, 1960, remains the basic study. In the following discussion I assume familiarity with Lord's arguments.

[6] Meillet, 1923. Nagy, 1974, comparing Greek and Indic meters, derives the hexameter from a pherecratic with internal expansion of three dactyls. The best explanation of the hexameter as an internal development is that of N. Berg, 1978, an explanation I am inclined to accept; cf. also West, 1982: 34–8; West, 1988: 152–6. See W. S. Allen, 1977, for a discussion of Greek meter from a linguistic point of view.

a repertory of phrases, lines, and groups of lines helps the poet to construct his verses, a repertory of such typical scenes as putting on armor, calling an assembly, or fighting a duel helped the poet build his story at the narrative level.[7]

All this is necessary because an aoidic performance is something sensational. The bard stands at the center of attention while he tells his story to a vigorous musical accompaniment. He holds his audience by musical rhythm and narrative line, neither of which allows for pause. Because the dictional and narrative units are preformed, the poet is free, under the pressure of live performance, to focus on how he will build the overall story. He embellishes or truncates as he goes along and as he sees fit.

Rhetorical expression, of which epic is a high form, must take account of the paradox that we speak faster than we can organize our thoughts. Understanding, based on thought, requires reflection and the fixing of detail within a larger frame. For this reason such rhetorical showpieces as the speeches of Demosthenes or Cicero, when taken to the study, give the impression of too many words, too little substance.

Silence and incomprehensibility destroy the rhetor's control. The rhetor gains his power by thinking aloud for the audience, replacing their thoughts with his own. Silence returns thought to the audience: they may question his point. Because the audience thinks more slowly than the rhetor speaks, the rhetor must be redundant to hold the audience. Every public speaker understands these rules; Cicero says everything twice, or thrice.

Redundancy is for the rhetor what the formulaic style is for the singer of tales. Homeric language was a thoroughly practical system of communication. It is an irony in the history of literary theory that the original functions of repetition – to facilitate oral composition and to reduce the discrepancy between rates of thought and speech – gave rise to theories of poetic and prosaic diction. What for Homer served the goal of communication, imitators down to the nineteenth century mistook for ornament, otiose, yet contributing to grandeur. Dactylic hexameter was not just one of many ancient meters. It was the predominating rhythm of ancient poetry by far: the meter of Homer, Hesiod, the Homeric Hymns, Apollonios of Rhodes, Kallimachos, Theokritos, Ennius, Lucretius, Virgil, Juvenal, and Nonnos.

On the analogy of the Serbocroatian bards, the ancient Greek *aoidos* learned his technique of song while a child, sitting at the feet of an older

[7] See especially Arend, 1933, and Fenik, 1968.

master. Here he absorbed the rhythmical essence of the technique and the formulaic phrases and whole lines that helped the performer to construct rhythmical lines in live performance. He also learned unconsciously how to mold new expressions on the basis of the old.

The medium of the Greek oral poets was a special language with the odd quality of being spoken by few men, but understood by all speakers of the vernacular. We can explain the resistance of the "formulas" to definition if we assume that, like the vernacular, it is controlled by a structure "deep" in its users' psyche.[8] Though the Homeric *Kunstsprache* is more complicated in its unconscious structure than vernacular speech, the speakers of this *Kunstsprache* were not any more limited in their opportunity to use language "creatively" than a modern novelist is limited by a finite number of words and grammatical forms. He can say what he wants, if he knows how.

The oral poet uses traditional language when he can and generates his own diction on the model of traditional forms when he has to, or he makes up new diction to fit his unconscious knowledge of the rhythm of the line. Through new invention "traditional diction" came into being.

When an oral poet learns a song from another *aoidos*, he does not learn "the words," but a sequence of themes that he can reproduce while "speaking the language of oral poetry." In the poet's mind the sequence of themes *is* the song. When an oral poet claims to reproduce another singer's song "word for word," even after a single hearing, he means that he can reproduce the same sequence of themes. Themes, however, can be woven in and out, and obviously new themes can be created. Live performance demands flexibility. For short passages verbatim reproduction is possible, as when a message is reproduced word for word, but verbatim reproduction is not possible for a whole song.

The subjects of Greek oral song were those of common interest to preliterate societies: genealogies, myths of creation, stories of heroic exploits. Though in the great days of the Bronze Age kingdoms – Mykenai, Thebes, Iolkos, and Pylos – the great themes were imprinted on the tradition, some elements are older, of Eastern or even paleolithic origin.[9] Greek oral poetry is deliberately nostalgic, as if to recall to Dark Age descendants a once great past. Many stories circulated about two great wars, at Troy and Thebes, which may have taken place in the Greek Bronze Age. Yet details of Mycenaean cultural life were lost by the ninth–eighth centuries B.C.: inhumation, beehive tombs, the quotidian realities of palace economies, a literacy restricted to the

[8] Cf. Nagler, 1974: 1–63.

[9] See Burkert, 1985: 208–11.

palace – not a trace in the Greek epic tradition. Isolated memories of certain material artifacts may, however, come down from the Bronze Age (e.g. the tower shield, the boar's tusk helmet). The diction of song has been constantly adapted through generations to the dialects of the vernacular, although isolated words (such as φάσγανον/ξίφος ἀργυρόηλον) and isolated linguistic features (such as in the independence of preverbs, e.g. ἀπὸ θυμὸν ὄλεσσεν, older even than the dialect of Linear B[10]) remained frozen in the stylized language.

Such was the tradition in which Homer appeared, as inferred from modern comparative study. But we also learn a good deal about aoidic poetry from Homer himself. In the *Odyssey* especially he is concerned, in a curiously self-conscious way, about the oral poet and his art.

The aoidos *in context*

Hail, you maidens all! And remember me in aftertime, whenever some man of the earth, a trial-worn stranger, comes here and asks: O maidens, who do you think is the sweetest *aoidos* who comes here, in whom you delight most of all? You, with one voice, say this about me: a blind man, who lives in rocky Khios, and all his songs, forever, shall reign supreme. (Hom. Hymn to Apollo 166–73)

After festivities on the athletic field in Skheria, where blind Demodokos sings the short jocular song "The Adultery of Ares and Aphrodite" (*Od.* 8.266–366), honored incognito Odysseus and the Phaiakian gentry return to the banquet hall. Demodokos again is summoned, "honored by the people" (8.472), and Odysseus awards him a select piece of meat, sign of high honor:

For the *aoidoi* of all men upon earth are allotted honor and respect, because to them the Muse gave song, and she loves the tribe of *aoidoi*. (*Od.* 8.479–81)

The *aoidos* is a great man, evidently. Of course *aoidos* Homer is praising himself. He has Odysseus say:

Demodokos, I praise you above all other men, whether it was the Muse, Zeus' child, who taught you, or Apollo. For you sing well (λίην ἀείδεις) and in the right order (κατὰ κόσμον) the fate of the Akhaians, what they did to others and what others did to them, and what they suffered, almost as if you yourself were there, or heard it from one who had been. (*Od.* 8.487–91)

Fluent delivery (λίην ἀείδεις), fidelity to the tradition (κατὰ κόσμον), and verisimilitude – these are Homer's own ideals.

Odysseus asks for a specific song:

[10] Cf. Horrocks, 1981: 153–61; West, 1988, 156.

But come, change your topic (μετάβηθι) and sing of the building of the wooden horse, which Epeios made, inspired by Athene, which splendid Odysseus once led up to the acropolis as a ruse, having filled it with men who sacked Ilion. (*Od.* 8.492–5)

Odysseus names the song he wants by its theme, the ruse of the horse that brought down Troy. This is none other than *Iliou persis*, later actually taken down as a song of the Cycle. Odysseus adds:

If you tell me this in the right way (κατὰ μοῖραν), I will tell you that with a ready heart (πρόφρων) the god [i.e. the Muse] has given you the gift of godlike song (ὤπασε θέσπιν ἀοιδήν). (*Od.* 8.496–8)

The common phrase κατὰ μοῖραν, "according to portion," must here mean something like "with right emphasis," especially on the greatness of Odysseus. Like κατὰ κόσμον, "according to traditional order" of 8.489, κατα μοῖραν is an aesthetic expectation. When Serbocroatian bards boast that they can reproduce exactly a song they have heard only once, they mean something similar, that they can repeat the main themes in the right order and with the right emphasis.[11]

We learn something about the shape of an ordinary song in Homer's day from his summary of Demodokos' song (8.499–520), before it is interrupted by the *anagnorisis* of a weeping Odysseus. Demodokos takes up his song (ἔνθεν ἑλών) from the point when the Argives have sailed away, after burning their huts. First the Trojans try to decide what to do with the horse; then there are three points of view (an opportunity for the speeches oral poetry so much enjoys); then there are battles of individual heroes ("he sang how different men in different ways took part in sacking the high city" 8.516); finally, there is the *aristeia* of Odysseus in the chambers of Deiphobos. Although Odysseus had asked to hear about "the building of the wooden horse that Epeios made" (8.492–3), in fact Demodokos mentions neither Epeios nor the horse. So a member of the audience chose the general theme of song, while the *aoidos* decided on the specific treatment.

The *Odyssey* is itself a congeries of what in ordinary conditions of performance might have constituted separate tales: e.g. the saga of Odysseus, a story, *sans* romance and folktale, of the Trojan fighter who came home to find his property in the hands of usurpers, whom he killed at a feast of Apollo; the folktale of the kidnapped prince Eumaios,[12] cast in a realistic style with the seafaring Phoenicians as trinket-bearing knaves and a social background suitable to the late ninth or early eighth centuries;

[11] Cf. Lord, 1960: 27–8, 99–123.

[12] 15.403–84.

the tale of Menelaos, a *nostos* in its own right, supplemented by Nestor's report on Menelaos' fate.[13]

The most elaborate song within the song is Odysseus' great apologue in Books 9–10, a tour-de-force of the aoidic art astutely reshaped into a first person account, making a unity of many independent themes.[14] Odysseus' apologue contains folktales of unknowable antiquity and, in Book 11, good examples of catalogue poetry. It would violate the dramatic personality of Odysseus, a fighter and a wanderer, to accompany his tale with the lyre, but otherwise he speaks as any bard at a banquet. Indeed, his story replaces Demodokos' interrupted *Iliou persis*.

After Odysseus finishes the tale of the journey across the river Okeanos, "All were hushed in silence, held by a spell in the shadowy halls" (11.333–4), and Alkinoos remarks:

> O Odysseus, when we look on you we do not liken you to a liar and a cheat, as are so many men nourished far and wide on black earth, fitting together falsehoods out of whole cloth; but upon you is a grace of words (μορφὴ ἐπέων), and your heart is wise (φρένες ἐσθλαί). Your tale (μῦθον) you have told with knowing skill, just like an *aoidos*, the mournful woes of all the Argives and of you yourself. (*Od.* 11.363–9)

Odysseus has the aoidic virtues: truthfulness (he is no liar), eloquence ("grace of words," perhaps referring to technical skill), and fidelity to tradition (the *klea* of the Argives' sufferings).

Odysseus has sung 1,960 lines, a long song. Alkinoos begs for more, if it takes all night (11.373–4). Odysseus asks for respite, noting that "there is a time for many words, but a time for sleep too" (11.379). Yet he returns to sing another 709 lines for a total of 2,669. Here is an epic feat of song-making, like the three days and nights he swam in heavy surf off the shore of Skheria (5.388–9)!

From Homer's descriptions of the aoidic art, here and elsewhere, we can draw certain generalizations:

(1) Song is sung at the banquet or on the athletic field.
(2) Putting aside epic exaggeration, we may conclude that a song may be as long as 2,669 lines, the work of a master who can keep his audience up all night.

[13] 4.78–112; 4.351–537; 3.276–355.

[14] E.g. "Everyman and the One-Eyed Giant," "Everyman and the King of the Winds," "Everyman and the Witch," "The Man Who Went to the Land of the Shades," "Great Women of Eld." For the unconscious pattern governing the construction of these and other tales in the *Odyssey*, see Powell, 1977.

(3) But a song can be a short as 100 lines ("The Adultery of Ares and Aphrodite": 8.226–366) or 160 lines ("Blood Will Out, the Tale of Eumaios the Swineherd": 14.199–359).
(4) The *aoidos* can pick his own song ("Ares and Aphrodite") or sing at the request of the audience ("The Trojan Horse," Odysseus' apologue).
(5) A member of the audience makes his request by naming the theme, but the *aoidos* emphasizes what he chooses.
(6) The *aoidos* can tell a "whole story," like the jocular "Ares and Aphrodite," or, when dealing with saga, he can "pick up" (ἔνθεν ἐλών: 8.500) from some particular point within "the whole." The whole of a saga as we think of it, e.g. "The War at Troy," could not exist, however, as a separate song; songs are defined by theme (e.g. "The Wrath of Akhilleus").
(7) The purpose of the song is to delight (τέρπειν: 8.429), which the singer accomplishes through technical skill (μορφὴ ἐπέων), by giving the right emphasis (κατὰ μοῖραν), and by keeping to the traditional order of events (κατὰ κόσμον), "almost as if you yourself were there" (8.491).

The unprecedented scope of the Iliad *and the* Odyssey

I feel sure that the impetus to write down the Iliad and Odyssey did not come from Homer himself but from some outside source. (A. B. Lord)[15]

Or, si l'on peut à la rigueur soutenir que l'*Iliade* a été *écrite* par son auteur, personne ne peut en revanche croire qu'elle l'ait été pour des *lecteurs*. Si l'on veut qu'Homère ait composé l'*Iliade* pour qu'elle fut lue, il faut le placer après Archiloque, à la fin du vii[e] siècle, à l'heure où l'apparition de la prose permet de supposer un public de lecteurs – et celà est contraire aux témoignages les plus autorisés de la tradition littéraire et même de l'archéologie... (P. Mazon)[16]

A serious difference between the picture Homer gives of the *aoidos* and the picture we see looking at Homer himself is found in the extraordinary length of the *Iliad* and the *Odyssey*. These poems could never have been performed in conditions like those that Homer describes. No banquet or athletic event was long enough to permit that. Furthermore, the songs are governed by an overall purpose and unity of design quite unsuited to a live and necessarily episodic delivery before a restless audience.

[15] Lord, 1960: 152. [16] Mazon *et al.*, 1967: 253.

Some have tried to imagine an event that could provide a setting for the delivery of poems this long, such as a panegyris,[17] but no evidence exists for such an event. The delivery of the poems at the Great Panathenaia in Athens as early as the sixth century B.C.[18] is no analogy, since these performances must have been delivered by rhapsodes who had memorized their material from a written text. Some have thought that long songs such as the *Iliad* and the *Odyssey* could have been sung on succeeding days in a nobleman's hall. Yet it would take three hours a day for nine days in succession to perform the *Iliad* in this fashion.[19] Homer's conditions – restive listeners, interrupted song, and varied entertainment in the courts of Ithaka and Phaiakia – which we take to reflect actual conditions of performance in Homer's day, would not allow such a serial presentation. Ordinary oral performance in modern times offers no analogy, either.

We must envisage quite different conditions for the composition of the *Iliad* and the *Odyssey*. These conditions were created by the writing down of the songs. Though Homer had undoubtedly sung "The Wrath of Akhilleus" and "The Homecoming of Odysseus" many times before the *Iliad* and the *Odyssey* were recorded, and many times after, modern research into oral poetry seems to force the conclusion that the notion of writing down his songs could not have come from the poet himself. Possessing the power to create song orally, he would have no need of writing as a mnemonic device. He could not have imagined that his songs would be "lost" if not captured in writing; no oral poet ever thinks his songs will be lost. Nor could Homer have thought that there was a single version of his song so good that it had to be written down so as to be preserved verbatim.[20]

The thrill of the live entertainer lies in his emotional dialogue with the audience. As he delights them with his power, they thrill him with their approbation. The *aoidos* would not know what to make of a written text that speaks to an unseen reader. If the *aoidos* has something to teach his sons or successors, it is the technique of oral composition itself. A major

[17] Murray, 1924: 187. Wade-Gery assented, dividing the poem into three main sections for a three-day performance by relays of rhapsodes. Wade-Gery wondered if the specific panegyris might have been the Panionia at Mt Mykale in Karia (Wade-Gery, 1953: 18).

[18] Cf. Xen. *Symp.* 3.6.

[19] Notopoulos, 1964: 12. S. Powelson, the Harvard virtuoso at feats of memory, claimed it would take seventeen or eighteen hours to recite the *Iliad*, "a feat he believes has never been done" (p. 43 of article cited in ch. 4, n. 10, above).

[20] My impression is that there is consensus on this point among Homerists. From time to time someone raises a hand in doubt (e.g. recently: Bellamy, 1989), when the problem of the transmission of writing from East to West has not been faced directly.

conclusion of the Parry–Lord school, on the persuasive analogy of how oral bards behave in Yugoslavia, is that Homer did not write down his own poems.[21] Of course the analogy Yugoslavia/Greece fails at one critical juncture, because the Roman alphabet was not invented in order to record Yugoslav poetry while the Greek alphabet, according to our conclusions so far, was invented to record Greek poetry. The Parry–Lord school has never offered a position on the exact relation between archaic Greek alphabetic writing and the recording of the Homeric poems, except to say that it happened. In any event, if Homer did not write them down, somebody else did – the poems are dictated, according to the Parry–Lord school. It is on the assumption of a dictated text that we can explain the inordinate length of the *Iliad* and the *Odyssey*.[22] In the artificial conditions of dictation the poet must go much slower than ordinarily. He is not subject to the interruptions and demands of an audience, which shortens public delivery. Because the dictation and recording of poems of this length must have required many long sessions, Homer was freed from the conventional exigencies of public delivery. A slow pace encourages elaboration. His recorder, with whom Homer worked intimately, may for his own reasons have encouraged a full effort. So Milman Parry persuaded Avdo Medjedović, his best singer, to dictate the 12,323 lines of "The Wedding of Smailagić" and the 13,331 lines of "Osmanbeg Delibegović," though the average length of a Yugoslav oral song in performance runs to about 700 lines.[23]

In this way Homer was able to work into "The Wrath of Akhilleus" many other songs: "Helen on the Wall," "The *Aristeia* of Diomedes," "The Meeting of Hektor and Andromakhe," "The Duel of Paris and Menelaos," "The Catalogue of Ships," "Akhilleus Battles the River," "The Ransoming of Hektor," and much else. Into "The Homecoming of Odysseus" he wove the folktales of Odysseus' apologue, including "The Catalogue of Famous Women" and "The Catalogue of the Damned" in Book 11, though on the whole the highly plotted *Odyssey* appears to have been a free elaboration of the theme of the king returned, melded with the theme of the maturation of Telemakhos, more than an assemblage of songs which usually stood on their own. Commanding the full resources of his tradition, Homer built twin edifices of song. If we find chinks, they are great buildings all the same. We praise Homer, but the *Iliad* and the *Odyssey* were a joint venture, a cooperative effort between the poet and the man who wrote down the poet's words.

[21] See Lord, 1960: 28. [22] Lord, 1960: 124–38. [23] Lord, 1970: 15.

CONCLUSIONS

But writing, with all its mystery, came to the singers' people, and eventually someone approached the singer and asked him to tell the song so that he could write down the words. (A. B. Lord)[24]

Homer's audience: the Euboian connection

While we speak of the universal appeal of Homer's poems, in his own day Homer sang to a real audience of real men living in real time. Homer spoke to their concerns. It would be hard to find an historical audience that fits more closely what we can infer from the poems than the affluent, seafaring Euboians, called "Abantes" in the *Iliad* (2.536–7, 542–4), "who rage with outstretched spear." An early gnomic verse describes the men of Khalkis as the best fighters in Greece.[25] Homer's tale of international warfare waged on a plain would have special meaning to men who fought the first historical war in Greece, on the Lelantine plain. So famous and bitter was this war between Khalkis and Eretria that, like the Trojan War, it attracted allies on either side from all over the Greek world (Thuc. 1.15), including overseas Samos and Corinth (for Khalkis) and Miletos (for Eretria). Though the war over the Lelantine plain is ordinarily placed in the late eighth century, the earlier foundation, *c.* 800, of the more defensible site of Eretria from Lefkandi makes serious antecedent conflict probable. Thucydides' description of the war begun as a border dispute commends the view that it was a prolonged conflict that flared up repeatedly.[26] The *Odyssey*'s theme of longing for home after dangerous adventure in the far West would also have special relevance to men who actually traveled to the far West, to whom Skylla and Kharybdis were the Straits of Messina, the island of Aiolis the Lipari Islands north of Sicily, and Kirke's island somewhere in the Bay of Naples. Here is the sea route from Euboia to Pithekoussai. Ithaka itself, where we find some of our earliest writing (Inscription no. 46), lies on this route. The *Odyssey* is tailor-made for Euboians of *c.* 800 B.C., a time when the far West was just being entered, where everything was yet mysterious and strange.

We commonly think that the epic tradition belongs to Ionia, but the evidence is slight. If Homer knew the geography of Ionia, he also

[24] Lord, 1960: 124. [25] Jeffery, 1976: 67, 134. Cf. Parke, 1956: 424–5.
[26] Jeffery, 1976: 64–7 and n. 4 for review of the war and bibliography.

understood the geography of Greece in general. Even if Homer were Ionian by birth, as tradition maintained, linguistic analysis suggests that the epic dialect was not East Ionic – so long the *communis opinio* – but Central or West Ionic.[27] M. L. West cites the treatment of original labiovelar in πού, πῶς, πότε, ποῖος, etc., which in East Ionic gives κ instead of π,[28] and the occasional absence of compensatory lengthening following the loss of postconsonantal *wau* (e.g. ἐνάτη for εἰνάτη, ξενίη).[29] Wathelet concludes that the latter feature is, in fact, Euboian. "Attic" correption, i.e. the treatment of a syllable as short before plosive + liquid (e.g. ἔπεα πτερόεντα προσηύδα), also seems more to characterize West than East Ionic. Taken together, these linguistic features "point in the direction of Euboea as the area in which the epic language acquired its definitive and normative form. I know of no counter-indications that would favour Asia Minor," according to West.[30]

Homer's audience is likely to have included the adapter himself, who worked about 800 B.C. and who may have moved in the circle of Euboian adventurers, the men who left ceramics at Al Mina on the Syrian littoral and some of our earliest inscriptions at Lefkandi and in the Euboian colony of Pithekoussai. Once we accept that the adapter and the man who wrote down Homer are one and the same man, we will loosen the exasperating tangle of contradictions that has puzzled generations of Homeric scholars. According to my hypothesis, there was originally a single text of the *Iliad* and the *Odyssey*, the adapter's.[31] At first only he could read them. Copies of the poems, or parts of the poems, first circulated among Euboians, who may have carried them even to Italy.[32] With the poems were disseminated

[27] For the following, cf. West, 1988: 166–7.

[28] R. Janko, however, finds this argument dubious (personal communication).

[29] Cf. also Chantraine, 1958: 161–3; Wathelet, 1970: 154–7. [30] West, 1988: 166.

[31] I accept that the *Odyssey* was composed after the *Iliad*, though the evidence for this is the diachronic change in various linguistic features as described by Janko, 1982: 189 (for a thoughtful review of Janko's arguments, see Cantilena, 1986). Unfortunately, we cannot be sure that the slight changes that Janko detects reflect a chronological development, or whether they describe the range of a single poet's idiolect. Even if the linguistic variants noted by Janko do reflect chronological development, there is no way of telling how much time, months or years, we must postulate for "the slight, but perceptible and consistent, dictional developments displayed by the *Odyssey* relative to the *Iliad*" (*ibid.*: 191). Janko's own figures for the *Iliad* of about 750–725 B.C. and for the *Odyssey* of about 740–710 B.C. (*ibid.*: 228–31) themselves provide a generous overlap, and Janko himself (1988) believes that the *Iliad* and the *Odyssey* were composed by the same man. But Janko's dates are, in my view, a generation too late.

[32] Homer may himself have possessed a copy of his poems. Generations later his descendants on Khios, called Homeridai after their illustrious ancestor, still possessed the first manuscript, or copies

the rules of alphabetic writing. Not long after the adapter recorded the *Iliad* and the *Odyssey*, an early possessor of alphabetic writing (or the adapter himself?) wrote down the poems of Hesiod, who according to his own testimony had sung in Euboia at the funeral games of Amphidamas (*Erg.* 654–5).

Copies of poetic texts carried the alphabet from Euboia to Boiotia, to Crete, to Ionia, to Attica, to Corinth. Small changes made by copyists generated the epichoric varieties. Shorter, more manageable texts than Homer's pioneering achievement were taken down from other poets, but for a good while it did not occur to anyone to use writing for purposes other than recording poetry. The shorter, later poems (e.g. from the Cycle) were more often performed by rhapsodes than the poems of Homer himself. The rhapsodes were men who could read well enough to memorize from a written text; they were in direct line of descent from the adapter – his heirs, not Homer's. Soon, stories popularized by rhapsodic delivery were illustrated in Greek art. Even potters learned how to write. The *nouveaux riches*, so important to the changing social life of archaic Greece, lacking the privilege of birth, claimed cultural traditions that had once belonged to the *aristoi*. The newly enriched *kakoi* bought these pots that portrayed old tales, and were buried with them, as were the *aristoi*, anxious to shore up their traditional claims on power and social influence.

The legend of Palamedes

Palamedes, you have forgotten the wrath that once you felt toward the Akhaioi; and you have brought into being many men of wisdom. Yea, Palamedes, who made words, who made the Muses, who made me! (Apollonios of Tyana, praying at the grave of Palamedes (Philostratos, *Vita Ap.* 4.13))

Στησίχορος δὲ ἐν δευτέρῳ 'Ορεστείας... τὸν Παλαμήδην φησὶν εὑρηκέναι [*sc.* τὰ στοιχεῖα].
Stesikhoros says in the second book of his "Oresteia"... that Palamedes invented [letters]. (Stesikhoros, fr. 34B (213 Page))

Can tradition have forgotten utterly the adapter and his ingenuity? Perhaps not. The story of the invention of τά Καδμεῖα, "letters," by Kadmos the Phoenician reflects the Greeks' remembrance of the

of it, and in the sixth century B.C. Hipparkhos, son of the Athenian Tyrant Peisistratos, acquired a copy from them. For the Peisistratean recension, see above, ch. 4, n. 156.

geographical origin of the alphabet. Kadmos himself belongs somewhere in the Middle Bronze Age. But another man was also said by Greek tradition to be εὑρετής of the alphabet, Palamedes son of Nauplios, a figure prominent in non-Homeric accounts of the Trojan war.

Homer's silence about Palamedes is extraordinary, because in later tradition much was made of Palamedes and his exploits. Though Palamedes was usually called son of Nauplios, Virgil traced his descent from Belus, Semitic Baal, in order to establish connection with a Phoenician god.[33] Palamedes is even said to have been born in Euboia, the birthplace of Greek literacy.[34] By placing the infant Telemakhos in front of his father's plow, Palamedes outsmarted Odysseus, who feigned madness so as not to go to Troy.[35] Odysseus also hated Palamedes for his shrewdness in assisting the Akhaian cause: Palamedes avoided the bad omen of an eclipse, forestalled a plague, and prevented famine.[36]

Other famous stories of Palamedes explicitly connect him with writing. A post-Homeric version of the embassy of Odysseus and Menelaos to Troy to get back Helen through persuasion[37] places Palamedes in their company as carrier of a letter from Klytaimnestra to Helen.[38] Later, Odysseus, not the steady prize-bearer of the *Iliad* and the *Odyssey* but the unscrupulous intellectual of the *Philoktetes*, takes revenge by giving a bogus letter describing a bribe from Priam to Palamedes to a Phrygian captive. The letter is conveniently discovered on the murdered Phrygian, and innocent Palamedes is sent to a traitor's death.[39]

Palamedes is also said to have taught writing to the Greeks or to have established the order of the letters.[40] Euripides wrote about him in a lost play:

ἄφωνα φωνήεντα συλλαβὰς τιθεὶς
ἐξηῦρον ἀνθρώποισι γράμματ' εἰδέναι

[33] *Aen.* 2.82 Belidae nomen Palamedis. Cf. *Myth. Vat.* 1.45 and Servius *ad loc.*: septimo gradu a Belo originem ducens.

[34] *Eudox.* 321 Blass; cf. Greg. Naz. *Or.* 4.107. Palamedes' attachment to Argos (Tac. *Ann.* 11.14) is evidently a secondary association based on the similarity between the name of Palamedes' father, Nauplios, and the city Nauplia in Argolis. Παλαμήδη is the modern name of the acropolis above Nauplia.

[35] Ov. *Met.* 13.34–9; Serv. *Aen.* 2.81.

[36] Eclipse: Philostr. *Her.* 33.5–9 DeLannoy. Plague: Philostr. *Her.* 33.14–19 DeLannoy. Famine: Tzetz. *ad Lyk.* 580 Scheer.

[37] Cf. *Il.* 3.205–6, 11.139–40.

[38] Tzetz. *proleg. Alleg. Il.* 405.

[39] Crying, according to Euripides (schol. *Or.* 432), "I pity you, O Truth, who died before me!" – quoted by Socrates, according to Plato, as a jibe at Athenian democratic justice. Cf. Pl. *Apol.* 41B.

[40] As teacher of writing, cf. quotation from Stesikhoros above. For order of signs: Athanas. *c. gen.* 18.

Making syllables out of consonants and vowels,
I taught men how to write. (fr. 578 Nauck[2])

According to Hyginus, Palamedes added eleven new letters to a preexisting seven invented by the Moirai; that is, apparently, Palamedes added consonants to the seven vowels AEHIOΘΩ.[41] Similar reports say that Palamedes added four letters to the sixteen invented by Kadmos,[42] a tradition we may take to mean that Palamedes invented Greek writing by making changes to a Phoenician system. In fact, this is just what the adapter did. One account actually assigns to Palamedes the invention of the long vowels.[43]

Palamedes became a catch-all εὑρετής of clever devices of many kinds. In addition to inventing the alphabet or making changes to a preexisting writing, he was said to be first to have recorded laws and to have invented numbers; of course the "Milesian" numerical notation *is* the alphabetic series. Palamedes' invention of music may refer to Greek musical notation by means of alphabetic signs. Other inventions of Palamedes ring variations on the theme of putting things in order, often by means of careful measurement. He measured time and divided it into hours, months, and years. He described the ordered motion of the stars and created a stable means of measuring value by inventing coinage. He set up the order in which one takes one's meals and the proportion of water and wine in the mixing bowl. He ordained a system for marshalling troops in an army and the principles of military tactics. He invented the game of checkers, played on a board divided into measured squares, and dice, played with cubes inscribed with letters (= Milesian numbers).[44]

The connection in the Greek mind between placing things in a careful order and reducing them to their essential elements is reflected by their using the same word στοιχεῖον, from στείχω, "to march in a row," for both an alphabetic sign (because it occurs in a sequence) and for an atomic elementary substance (because as letters represent the irreducible

[41] Hyg. *fab.* 277. Hyginus reports that Simonides later added four more letters, and Epikharmos two.

[42] Plut. *Quaest. conviv.* 9.2. ZΥΦΧ according to Pliny, *NH* 7.56, 192. Others give different letters and different numbers of them: see Roscher, 1894–1937, s.v. Palamedes.

[43] Iren. *c. haeres.* 1.15.4.

[44] Laws: Gorg. *Pal.* par. 30 Diehls. For the alphabetic and the acrophonic numbering systems, see Woodhead, 1981: 107–11. Music: Alkid. *Od.* par. 25 Blass. Time: Philostr. *Her.* 33.1 DeLannoy. Stars: schol. Aiskh. *Prom.* 457, *sub* Aiskh. *Pal.* fr. p. 59 Nauck[2]. Coinage: Philostr. *Her.* 33.1 DeLannoy. Meals: Aiskh. *Pal.* fr. 182 Nauck[2]. Wine: Ion of Khios, in Athen. 10.426e. Army: Aiskh. *Pal.* fr. 182 Nauck[2]; Greg. Naz. *Or.* 4.107. Checkers: Soph. *Pal.* fr. 438 Nauck[2]. Dice: Paus. 10.31.1.

constituents of speech, so do the atoms represent the irreducible constituents of matter). κατὰ στοιχεῖον means "alphabetically."

Palamedes' "inventions" of writing, time-reckoning, numbers, gaming with dice, coins, and army (i.e. hoplite) tactics belong to the late Geometric and early archaic period. The letter that he carries from Klytaimnestra to Helen and the letter that betrays him unjustly are real references to literacy. If Palamedes, son of Nauplios, was the adapter's name, we would expect Homer to be silent about him. The Suda explicitly connects Palamedes with Homer, saying that Palamedes was an epic poet (!) and that Homer envied him for his poetic powers. It is hard to think of any other hero famous in the later Trojan saga, never mentioned in the Homeric corpus, who imposes himself upon stories that had earlier excluded him and could do without him. The Trojan saga already had its man of many wiles in Odysseus. Yet the legend of Palamedes inspired plays by Aiskhylos, Sophokles, and Euripides.

Behind figures of heroic legend often stand real men. Legend is not history, though an Agamemnon *may* have lived in Mykenai sometime about 1200 B.C., and he *may* have led an expedition against Troy. As for Palamedes, the Greeks especially knew one thing about him: he was so clever that he devised a way to write down Greek speech. We would expect a man to be remembered who through his cleverness did just that, and in Palamedes we may have found the adapter's very name.

Envoi

I got rid of my cigarette stub in the jade ashtray, looked at the bleak unhappy face of the man sitting opposite me, and plowed on. It was heavy going, and the sound of my voice was beginning to sicken me. (Raymond Chandler)[45]

Tota quaestio nostra historica et critica est, non de optabili re, sed de re facta... (F. A. Wolf, May 17, 1795)

Nothing is more human than speech; no writing is so fine a servant of language as the Greek alphabet. It is conceivable that Greek alphabetic writing was invented to record business accounts; or that it was repeatedly reinvented with minor variations in the consonantal system; or that Homer himself wrote down his poems so they would not perish; or that Homer taught his poems verbatim to the first in a line of successors, repeating them until the successor got them right, and somebody wrote them down later; or that the adapter devised the alphabet to record

[45] From the shamus Philip Marlowe's unraveling of the mystery of *The High Window*, New York 1942: 191.

hexametric poetry in general, or to record a poet of whom all trace is lost, while a near contemporary approached Homer and wrote down the *Iliad* and the *Odyssey*. But evidence and reason reject these suppositions. We cannot separate the invention of the alphabet from the recording of early hexametric poetry. We cannot separate the recording of early hexametric poetry from Homer. For extraordinary events we seek extraordinary causes. Homer sang his song and the adapter took him down. From this momentous event came classical Greek civilization and its achievements. But no achievement surpassed that of Homer and his scribe, who made Homer's song immortal.

APPENDIX I

Gelb's theory of the syllabic nature of West Semitic writing

... The Greeks were not the inventors of their alphabet, but themselves took it over ready-made from the Phoenicians some time about the beginning of the ninth century B.C.... This [the Phoenician writing] is the earliest known alphabetic writing – that is, one in which each sign denotes one simple sound ... (J. Černý)[1]

The North Semitic alphabet was from the first moment of its existence a true alphabet; at least, as far as Semitic languages are concerned. (D. Diringer)[2]

C'est [l'écriture consonnantique phénicienne] une écriture qui a banni les idéogrammes, mais qui au fond reste à quelque degré idéographique, puisqu'elle ne note que la racine, sans tenir compte de la vocalisation qu'elle peut recevoir. (J. Février)[3]

I. J. GELB'S DESCRIPTION OF EGYPTIAN PHONETIC SIGNS AS CONSISTING SOLELY OF LOGOGRAMS AND SYLLABOGRAMS

In Chapter 2, "How Writing Worked before the Greek Alphabet," I describe the phonography of Egyptian writing according to I. J. Gelb's thesis that each phonogram represents one (or more) consonants whose quality is clear, plus an understood vowel (or vowels), or absence of vowel(s), which must be provided by the native speaker.[4] This is not a traditional view among Egyptologists, who prefer to view the phonograms of Egyptian as purely consonantal in nature, where each sign represents one, two, or three consonants, the so-called uniliterals, biliterals, and triliterals.[5] According to this description of Egyptian phonography, the vowels are indeed to be provided by the native speaker, but they are not implicit in the sign. The difference between the traditional description of Egyptian phonography and Gelb's description pertains, therefore, to principles of inner structure and to the psychology of the writer and the reader. The trouble with the traditional description of the phonograms in Egyptian, Gelb complained, is that it takes no account of the history of writing. Specifically the "*Egyptian phonetic, nonsemantic writing cannot be consonantal, because the development from a logographic to a consonantal writing, as generally accepted by the Egyptologists, is unknown and unthinkable in the history of writing, and because the only development*

[1] Černý, 1971: 212. [2] Diringer, 1968: 166. [3] Février, 1948: 208.
[4] For the following, Gelb, 1963: 72–81, 147–53. [5] Gardiner, 1957: 25.

known and attested in dozens of various systems is that from a logographic to a syllabic writing."[6]

In support of his general principle, Gelb noted several syllabic systems that historically descend from logo-syllabic (and ultimately logographic) systems, such as Assyro-Babylonian, Elamite, Hurrian, Urartian, and Hittite cuneiform from Sumerian; Linear B and Cypriote writing from still undeciphered but presumably logo-syllabic Cretan writing, such as Linear A, the Phaistos disk and Cypro-Minoan; syllabic derivatives from Chinese, such as Old Korean and Japanese; and various other parallel developments.[7]

Gelb pointed out that a handful of signs that indicate only the consonants and leave the vowel unspecified, or indicate the vowel inadequately, exist in Mesopotamian systems, which everyone agrees are syllabic. Thus the existence of a syllabic sign that is specific about the consonant but unspecific about the vowel is admitted in principle by all authorities. Gelb also argued the psychological improbability of isolating the "letters" of language at so early a stage in the history of writing as that represented by Egyptian writing. Primitive peoples in modern times have a hard time reducing the components of language to units smaller than the syllable.[8] Certainly we experience speech as a collocation of syllables, if we think about the components of speech at all. Because alphabetic letters exist in the mind, not in the sounds we hear, alphabetization is a violation of the experience of speech and is too sophisticated an intellectual achievement, according to Gelb, for the early stage of phonetic writing that we find in Egyptian.

The failure to specify vowel qualities, a feature confined in the ancient world to the Egyptian and the later West Semitic writings, is ordinarily explained as reflecting the triconsonantal root structure shared by both Egyptian and Semitic languages. Unlike Indo-European languages, which usually indicate morphological and semantic differences by changing a word's ending, the Egyptian language and the related Semitic languages show such changes by internal vowel mutation. For example, Arabic *qatala* means "he killed," but *qutila* means "he was killed."[9] Because the triconsonantal root is the stable element in the word, the designer of Egyptian writing – so runs the argument – chose to indicate just that basic structure in his writing, allowing the reader to fill in the vowels.

It is hard to think of a better explanation for this curious feature of Egyptian and the later West Semitic writings. Akkadian cuneiform, which recorded many Semitic languages, of course did give information about the vowels; but Akkadian cuneiform was borrowed directly from the Sumerians.[10] Why else

[6] Gelb, 1963: 78–9 (italics his). [7] Gelb, 1963: 280, note 23. [8] Gelb, 1963: 79.

[9] These changes are analogous to vowel gradation in the so-called "strong verbs" in English and German, such as *bitten, bat, bäte, gebeten* or *sing, sang, sung*, and nominal *song*.

[10] As a large and important class, West Semitic writing is distinguished from Akkadian cuneiform, which records the Assyro-Babylonian languages; Akkadian cuneiform is the Eastern branch of Semitic writing derived from the earlier Sumerian cuneiform. West Semitic writing has two divisions: North-West Semitic, including Phoenician, Hebrew, and Aramaic, and South-West

should the fashioners of the Egyptian and West Semitic writings have considered dispensable the very elements which indicate a word's grammatical role, even a word's part of speech? This explanation for so striking a structural feature resides in what Gelb calls the "principle of economy":[11] a system of writing seeks maximum efficiency by reducing its repertory to the smallest possible number of signs. No signary is capable of indicating all phonetic elements, and compromise is unavoidable between what one might like to express and what a workable system makes possible. This is especially true in dealing with the large repertory of signs made necessary by logo-syllabic writing. If in logo-syllabic writing the vowels are to be expressed, it will simply not be possible to be completely clear about the consonants. Mesopotamian cuneiform, which does express the vowels, is unable to distinguish between voiced, unvoiced, and emphatic consonants when they close a syllabogram. Linear B makes a similar compromise in failing to express [m], [n], [l], or [s] when these consonants close a syllable, and in failing to distinguish between voiced and unvoiced velars and palatals.

In short, the creator of Egyptian writing, and the later adapters of the West Semitic writings, chose to communicate clear information about the triconsonantal roots, but to remain silent about the quality of the associated vowels. This choice bore unexpected fruit in the Greek alphabet, which could not have been built on a vocalized syllabary belonging to the Mesopotamian or Aegean traditions.

Whether or not the Egyptian phonograms were syllables with the vowels unspecified, as Gelb argues, or pure consonants, as most Egyptologists maintain, may not make much practical difference, since we read Egyptian through the prism of a conventional phonetic reconstruction. But the distinction makes a great deal of difference to an inquiry into the origins of the Greek alphabet. Did the Greek alphabet *just* add vowels to a preexisting "consonantal alphabet"? Or was the Greek alphabet the first reduction ever of speech into its constituent elements through intellectual analysis? The genius of the West Semitic writings resides in the exceedingly small number of signs in their repertory, 22–30 as compared to the 700 Egyptian signs (100 phonograms and 600 logograms), 600 Sumerian signs (150 phonograms and 450 logograms), or the 50,000 logographic signs in modern Chinese writing. It was long ago suggested that the small repertory of West Semitic writing may have originated from Egyptian writing by discarding the cumbersome apparatus of word-signs, semantic and phonetic complements, and signs expressing more than one consonant, thus isolating the 24 Egyptian uniconsonantal signs.[12] This would yield a repertory close in number and range

Semitic, including North Arabic, South Arabic, and Ethiopic. In Akkadian cuneiform four signs represent the pure vowels [u], [a], [i], and [e] while the other phonograms represent a combination of vowel and consonant(s), giving values such as [am], [mu], or [bal].

[11] Gelb, 1963: 251.

[12] The so-called "uniliterals" as opposed to the "biliterals" and "triliterals," which Gelb would apparently describe as syllabograms of two and three syllables. Cf. Erman, 1928: paras. 11ff.; Gardiner, 1957: para. 17.

to that of West Semitic writing, though the Egyptians themselves perceived no difference in kind between the "uniconsonantals" and other phonographic signs. The Egyptians, by means of the 24 uniliterals, might have recorded their language as effectively as with the repertory of 700, but they never showed the slightest interest in doing this. In any event, the syllabic nature of Egyptian, if demonstrated, will argue for the syllabic nature of West Semitic, because both writing systems are similar in their inner structure. The phonograms in each specify only the consonantal, not the vocalic qualities. It is this very feature held in common by Egyptian writing and West Semitic, and not any formal resemblance, which leads us more than anything to infer the descent of West Semitic from Egyptian.

DEBATE ON THE SYLLABIC NATURE OF WEST SEMITIC WRITING

In addition to his argument from an analysis of the structural principles of Egyptian writing, Gelb cited various internal features of West Semitic writings themselves which suggest that they were conceived by their users as being syllabaries. Since Semiticists have not, in general, been happy with Gelb's description of West Semitic writing as being a syllabary, in the following I will set forth, first, Gelb's several arguments,[13] followed by the opposing views,[14] then a summary of the question.

(1) *argument*: Gelb notes that in West Semitic writings we find occasional use of *scriptio plena*, where the quality of a vowel is indicated by the use of a "weak consonant," such as *ʾalf* to indicate the vowel [a], or *yōd* to indicate the vowel [i]. So the syllable [za] may be written with the sign *ʒai* plus the sign *ʾalf*; the syllable [ti] may be written with the sign *tau* plus the sign *yōd*. Since the practice of *scriptio plena* is also found in the clearly syllabic Akkadian cuneiform writing, the two systems must be structurally similar.

(1) *rebuttal*: *scriptio plena* in Akkadian cuneiform may result from internal "decay," when initially syllabic signs have lost their syllabic character and become virtual "alphabetic signs." So the cuneiform sign for [w], which may be transliterated [wa], [wi], [we], or [wu], came to be regarded as having the value of simple [w], to which the appropriate vowel – [a], [i], etc. – was attached in *scriptio plena*. In other words, the use of *matres lectionis* can be taken to prove not the likeness of West Semitic to syllabic cuneiform, but the likeness (in certain instances) of cuneiform to alphabetic West Semitic.

(2) *argument*: When the Hebrews, influenced by the Greek alphabet, introduced

[13] Gelb, 1963: 122–53, 166–76, 190–205; and Gelb, 1958: 2–7.

[14] Best represented by Segert, 1958a; 1958b. Both sides are summarized by S. A. Hopkins in his "Additions and Corrections" to pp. 154–5 of Driver, 1976: 253–9. Hopkins contrives to support Segert on every point. See also: Cross–Freedman, 1952: 21–34, 58–9; Segert, 1958c; Cross–Lambdin, 1960: especially 21, note 3; Cross, 1967: 11–12; Cross, 1975: 106–11.

a formal system of vocalization into their writing by means of diacritical marks, they included a mark called in modern Hebrew *shewa*, derived from *šāw*, "nothing," to indicate that only a simple consonant or the short vowel [e] is to be read. The practice reflects an original syllabic character of the writing. For if an individual sign were perceived as a bare consonant in the first place, there would be no need to create a special mark to indicate the lack of a vowel. The older Hebrew term for the sign, *ḥiṭpā*, "cutting off," and the Arabic term *sukun*, from a root meaning "to be quiet," or *ǧeẓma*, from a root meaning "to cut off," and the Sanskrit word *virama* (Devanagari writing derives from Semitic) meaning "a stopping, a resting," lends support to the theory that the signs had in origin a syllabic value. It is the implied vowel that is cut off, made quiet, or stopped.

(2) *rebuttal*: But the meaning of *shewa*, at least, is not certain, and in Hebrew *shewa* was attached only to internal signs, not to signs at the ends of words, where it might be most often expected. True, the Arabic *sukun* is used in every case where no vowel is intended, but the Syrians, who seem to be the first of the West Semites to have introduced vowel signs, used no mark to indicate lack of a vowel. Furthermore, *shewa* and similar marks were not adopted until perhaps as late as the ninth century A.D., and then by grammarians who could not have known anything certain about the history of West Semitic writing. The practice is too far removed in time from the origin of West Semitic writings to reveal anything about the initial character of these writings. As for the meaning of the terms applied to these signs, they merely indicate that the syllable is cut off or ended, not that a vowel has been cut off from the syllable.

(3) *argument*: A few centuries after Christ the Ethiopians introduced into their writing, which is a formal development of South Arabic (itself derived from West Semitic), a vowel system of the five full vowels [a], [e], [i], [o], and [u], plus an additional sign corresponding to the Hebrew *shewa*. The simple sign, however, without *shewa* or a vowel sign, stood for a consonant plus the short vowel [a]. The simple sign, in other words, was syllabic in nature, not alphabetic. Indic writing, also derived from a West Semitic prototype, functions in the same way: five signs indicate the five vowels, a sixth sign indicates no vowel, but the simple sign stands for the consonant plus the vowel [a].

(3) *rebuttal*: But the earliest Ethiopic inscriptions do not have vowel signs at all. What may have happened is that in introducing the vowel signs, which graphically are appendages to the basic sign, the Ethiopians, like the creators of Indic writings, created a virtual syllabary from a preexisting alphabet.

(4) *argument*: While much of the evidence in favor of the syllabic character of West Semitic is based on late, sometimes very late, evidence, some early evidence is also forthcoming from the fifteenth century B.C. in a tablet, discovered in 1955, that gives Akkadian cuneiform equivalents of Ugaritic writing. (Ugaritic writing, though expressed in an anomalous cuneiform graphic style, shares a repertory and

an order of signs so close to later West Semitic that direct connection is certain.) In the tablet, each Ugaritic sign is given an Assyro-Babylonian equivalent. Naturally, the equivalents are syllables, since Akkadian cuneiform was a logo-syllabic system. But if the Ugaritic system – and therefore also its descendant and congener, West Semitic – were alphabetic, as is generally argued, one would expect the compiler of this table of transliterations to approach systematically the problem of rendering pure Ugaritic consonants into the Akkadian syllabary; while preserving the correct consonantal values communicated by the Ugaritic signs, he would be expected to have chosen Akkadian signs that consistently express a single vowel, such as [ba], [ga], [ḫa] and so forth. Instead, the vowels that accompany the consonants in the Akkadian equivalents are higgledy-piggledy [i] or [e] or [u]. Either the scribe was attempting to record the different base vowels associated with the Ugaritic signs, or he had some other unknown purpose. The thesis that Ugaritic signs expressed pure consonants is in any event seriously called in question.

(4) *rebuttal*: But the scribe's unsystematic approach to the vowel associated with the cuneiform consonant may just as well reflect the fact that the consonantal value of the Ugaritic sign was alone significant, the vowel being unspecified and thus utterly indifferent.

(5) *argument*: There is clear evidence for the use of syllabic signs in two scripts perhaps created under the influence of Punico-Phoenician, namely archaic Etruscan, dated to *c.* seventh–fifth centuries B.C., and Iberian, dated to *c.* sixth–fifth centuries B.C.

In archaic Etruscan the continuant sonants [l], [m], [n], [r] and the spirants [s], [ś], [z], [f] are written without accompanying vowels, while the stops are always written with vowels. Thus Minerva is written MNRVA. *c* is written with the vowels [e] or [i]; *q* with the vowels [u] or [o]; and *k* is written with [a], suggesting that the original values of *c*, *q*, and *k* were [ce], [ci], [qu], [qo], and [ka] respectively. Furthermore, in South Etruscan, Campano-Etruscan, and Venetic inscriptions certain signs standing for word-initial vowels and syllable-final consonants are provided with dots, either before or after the signs or both, as in the writings *i·tan·* or *a·u·θ·leθ·* (for *auθleθ*). This manner of pointing accords with the interpretation of this system as syllabic in nature, because, when used with the word-initial signs, the points seem to reduce the original weak consonant plus a vowel (such as [ʾa]) to the simple vowel (namely [a]); with the syllable-final consonants, the points seem to function like the *shewa* or *virama* and reduce the syllabic sign to the pure consonant.

Iberian writing, a script used to record a little-known Celto-Iberian language of Eastern Spain, consists of five vowel signs, eight continuant phonemes written without indication of the vowels, and fifteen syllabic signs that stand for the three stops [b *or* p], [d *or* t], [g *or* k], each with a different vowel. In light of the powerful Punico-Phoenician influence on the Iberian Peninsula, we may

reasonably assume that Iberian writing was modeled after Punico-Phoenician, and that the syllabic nature of Iberian writing reflects the syllabic character of its model.

(5) *rebuttal*: But Etruscan writing was probably derived directly from the Greek writing of the Khalkidic colony at Cumae, without any direct contact with Phoenician. The syllabic character of Iberian writing may derive from such Aegean writing as Cypriote or Linear B.

(6) *argument*: Finally, most reputable linguists implicitly or explicitly agree that West Semitic writing was, structurally speaking, a syllabary. Gelb cites F. Praetorius, A. Seidel, S. Yeivin, A. Poebel, E. Schwyzer, E. H. Sturtevant, H. Pedersen, R. B. Kent, D. C. Swanson, M. Cohen, E. Sollberger, and above all the great linguist A. Meillet.

(6) *rebuttal*: "...all magicians and the vast majority of lay mankind once believed magical practices to be valid, but they were wrong!"[15]

Observations

Gelb's argument was revolutionary, for he attempted to overturn long-entrenched theoretical points of view that originated through isolated studies in uncoordinated disciplines. Gelb arrived at his view that West Semitic writing was a syllabary by trying to discover the principles that govern the evolution of writing. It is reasonable to assume that such principles exist; and it is not surprising that they should remain invisible to specialists working in separate disciplines. While Gelb established his general principles from a survey of writings through the world and through time, the Egyptologists and the Semiticists are inclined to justify traditional but limited views.

Even if not all of Gelb's specific arguments are valid, his general theory of writing has great force, especially the principle that a syllabic stage of writing will intervene between logo-syllabic and alphabetic writing. Nor are the objections of his opponents always cogent.

To say that *scriptio plena*, used both in West Semitic and in Akkadian cuneiform, does not indicate the syllabic character of the former but the alphabetic tendency of the latter, is a form of special pleading. The use of the *shewa* in Semitic writing does seem striking and to require a better explanation than that "it cuts off the syllable." Even if the invention of the *shewa* is late, and the originators of this and similar devices were uninformed about the history of writing, they nonetheless struggled with qualities inherent in the writings that they utilized. It is possible that the syllabic character of Ethiopic and Indic writing represents a step backward from an alphabetic model, but the easier explanation is that their model was itself syllabic. Although we may never know the thinking underlying the transcription of Ugaritic characters into Akkadian cuneiform characters with diverse associated vowels, it is still possible that the scribe

[15] Hopkins in Driver, 1976: 257.

attempted, as Gelb has reasoned, to render vowels accurately that would be sounded in the Ugaritic writing. Gelb may have gone astray in deriving syllabic features of Etruscan writing from a Phoenician model, but Iberian was in fact directly derived from Phoenician, according to recent work by J. de Hoz. A consensus among scholars of international reputation working on a topic to which they have devoted their life work, to whose agreement Gelb appeals, should be given some weight.

On the one hand, Gelb presents us with a cogent theory about stages we can expect in the evolution of writing, bolstered by a complicated array of evidence. Although any one item in Gelb's catalogue may be controversial, the sum is persuasive. On the other hand, his opponents present us with a traditional manner of reading ancient texts which is pragmatic, but depends on no general theory of writing. Although West Semitic writing has two qualities that we associate with alphabetic writing – names different from the values of the signs and a prescribed conventional order of the signs – both features are devices for the learning and transmission of the system, and do not bear directly on the way the writing works.

I maintain throughout this study that the Greek alphabet differed from all other ancient writings in its insistence on phonetic accuracy, that the Greek alphabet was essentially different from writings that went before it. The Greek alphabet differs, moreover, from its own descendants, which sometimes return to syllabism or even to logography, as in English orthography. We need to find a good historical explanation for this exceptional development. If by "alphabet" we mean a writing that works like the Greek alphabet, which allows one who does not know the language still to pronounce the words, then the Greek alphabet is the first alphabet. If we wish to resolve difficult problems in the history of writing, we will need to follow Gelb in establishing clear categories of difference that are based on careful analysis of internal structure and substantiated by comparative and historical material.

APPENDIX II
Homeric references in poets of the seventh century

These exist but are not so common as sometimes supposed.

When Alkman in his *Partheneion* celebrates the chorus-leader's brilliance, and says that she stands out "as if someone were to place a strong prize-bearing horse of ringing hoof [παγὸν ἀεθλοφόρον καναχάποδα] in the midst of the offspring of the wild asses that dwell in the rocks" (1.46–9 Page), we should not conclude that Alkman is thinking of Agamemnon's bribe to Akhilleus of "twelve horses, strong, prize-bearing [πηγοὺς ἀθλοφόρους], who have won prizes with their feet" (*Il.* 9.123–4). The archaic poets belong to the oral stage of Greek culture. They wrote not to be read, as we think of "reading," but to record what they had composed by ear. The phrase παγὸν ἀθλοφόρον, "strong, prize-bearing," must belong to a common store of Greek poetic expressions. Alkman does not "quote" Homer in an utterly dissimilar context; it would be scholarly conceit to think so. The addition of meaning by echoing a well-known phrase is an invention of the Alexandrian and Roman poets, alien to Archaic Greek poetry.

Nor can Tyrtaios be quoting Homer when he sings (fr. 7.21–30 Diehl; I note apparent exact correspondence by underlining, rough correspondence by sublinear dots):

αἰσχρὸν γὰρ δὴ τοῦτο, μετὰ προμάχοισι πεσόντα
(1) κεῖσθαι πρόσθε νέων ἄνδρα παλαιότερον,
ἤδη λευκὸν ἔχοντα (2) κάρη πολιόν τε γένειον,
θυμὸν ἀποπνείοντ' ἄλκιμον ἐν κονίῃ·
αἱματόεντ' (3) αἰδοῖα φίλαισ' ἐν χερσὶν ἔχοντα –
αἰσχρὰ τά γ' ὀφθαλμοῖς καὶ νεμεσητὸν ἰδεῖν –
καὶ χρόα γυμνωθέντα· (4) νέοισι δέ τε πάντ' ἐπέοικεν
ὄφρ' ἐρατῆς ἥβης ἀγλαὸν ἄνθος ἔχῃ
ἀνδράσι μὲν θηητὸς ἰδεῖν, ἐρατὸς δὲ γυναιξίν,
ζωὸς ἐών, (5) καλὸς δ' ἐν προμάχοισι πεσών.

This is shameful, when an old man falls in the forefront and (1) lies before the young, (2) his head silver and his beard hoary, breathing out his strong spirit in the dust, holding his bloody (3) genitals in his hands – shameful to see, awful to behold – and his skin naked; but (4) to a young man all is comely while he preserves the shining bloom of lovely youth, handsome for men to see and lovely to the women while he lives, and still (5) fair when he falls in the forefront.

The passage from Tyrtaios is often compared to Priam's similar lament for his son as Hektor goes out to fight Akhilleus beneath the walls of Troy (*Il.* 22.71–6):

(4) νέῳ δέ τε πάντ' ἐπέοικεν
ἀρηικταμένῳ, δεδαιγμένῳ ὀξέι χαλκῷ,
(1) κεῖσθαι· πάντα δὲ (5) ϙαλὰ θανόντι περ, ὁττι φανήῃ·
ἀλλ' ὅτε δὴ παλιόν τε (2) κάρη πολιόν τε γένειον
(3) αἰδῷ τ' αἰσχύνωσι κύνες κταμένοιο γέροντος,
τοῦτο δὴ οἰκτιστον πέλεται δειλοῖσι βροτοῖσιν.

(4) To a young man all is comely when he (1) lies killed in battle, wrecked by sharp bronze; all is (5) ϝair, though he is dead, no matter what of him is seen; but when dogs revile (2) his head white and beard hoary and the (3) ϝenitals of an old man dead, this is the most pitiful thing that can befall wretched man.

The similarities that appear in both passages belong to the traditional poetic language of the archaic tradition.[1] The passage is a topos from Greek martial culture: how beautiful to die young and handsome in battle, how hateful to die old. Homer uses the topos for bathos in his portrait of Priam, Tyrtaios to encourage defense of the aged. Traditional themes in traditional language support the different purposes of different poets.

When, on the other hand, Alkman sings in dactylic hexameter (fr. 80 Page):

καί ποκ' Ὀδυσσῆος ταλασίφρονος ὥατ' ἑταίρων
Κίρκα ἐπαλείψασα

And once Kirke, anointing the ears of the companions of strong-hearted Odysseus

it is best to conclude that he and his audience *are* familiar with Homer's *Odyssey*. The line may even come from an introduction to a recitation of Homer's tale. Pausanias may be right, too, in saying (9.9.5) that Kallinos (*c.* first half of the seventh century B.C.), in a lost passage, attributed the *Thebais* to Homer.[2] Even if we do not accept Homer's authorship of the *Thebais*, Kallinos' conviction testifies to Homer's fame in Kallinos' day, when to Homer were attributed all kinds of poems.

And Semonides of Amorgos[3] is surely thinking of Homer when he attributes to "the man of Khios" the homily on the transitoriness of youth (Sem. 29 Diehl; cf. *Il.* 6.146):

Οἵη περ φύλλων γενεή, τοιήδε καὶ ἀνδρῶν.

As the generation of leaves, so is the life of man.

Though we can conclude on the basis of such evidence alone that Homer precedes the archaic poets, we are always poorly informed about the dates of these poets. For example, the uncertain tradition in Jerome–Eusebius, 1,000 years later, puts Alkman at 654–11 B.C.,[4] while Kallinos' reference to the Kimmerians (frs. 3, 4 Diehl) should put him in the first half of the seventh century. The Suda makes

[1] Cf. Page, 1955: 144.

[2] So does Propertius 1.7.3.

[3] Unless it was the fifth-century Simonides of Keos, as Stobaeus, who preserves the poem, reports; but most editors follow Wilamowitz and give it to the earliest poet.

[4] See West, 1965, on the Alkman-commentary in P. Oxy. 2390, fr. 2. West puts one of Alkman's poems at 620 at the earliest and perhaps as late as 570.

Semonides a contemporary of Arkhilokhos, *obscurum per obscurius*; Cyril places Semonides in the first half of the seventh century (*Adv. Iul.* 1.12). Homer lived before the archaic poets, but just when we cannot determine from this line of inquiry.[5]

[5] For a full discussion of this topic, see Janko, 1982: Appendix D, 225–8.

DEFINITIONS

Most definitions in this section are drawn from the glossary in Pullum–Ladusaw, 1986: 233–41, s.v.

abecedarium: the signs of a signary organized in conventional sequence.

acrophonic principle: the hypothesis of an historical development of a sign's value from the first "element" of a word, whether the word is represented by a picture or a nonfigural representation. Thus *ʾalf* is said to have the value ʾ (= glottal stop) because ʾ is the first element of the word "*ʾalf*." The hypothesis appears to be invalid.

adjective sign: unlike an indicative sign, which emphasizes information implicit in a logogram, the adjective sign adds new information (Bennett, 1963: 108).

affricate: a consonant composed of an initial stop phase followed by a release phase taking the form of a homorganic fricative (Pullum–Ladusaw).

Akkadian writing: East Semitic writing, with its Assyro-Babylonian branches.

alphabet: a writing in which a sign normally stands for one or more phonemes of the language. Thus, in English, the alphabetic sign *b* stands for the phoneme /b/, while the sign *c* stands for the phonemes /k/ or /s/ (Gelb, 1963: 248).

alveolar: relating to the alveolar ridge, the bony ridge behind the upper teeth (Pullum–Ladusaw).

apical: relating to the tip of the tongue (Pullum–Ladusaw).

aspirated: said of pulmonic stop consonants immediately followed by a brief delay in onset of normal voicing state, as the [p] in English "pet" (Pullum–Ladusaw). An "aspirate" is also a consonant indicating an initial release of breath before the beginning of a word, as the *h* in "honey."

bilabial: relating to articulation involving the two lips.

consonants: any sounds which are not vowels. They may be *voiced*, accompanied by vibration of the vocal chords, or *voiceless*. If the obstruction of the air passage is complete, they are called *stops* (or *plosives*). If the obstruction is partial, but produces friction, they are called *fricatives* (or *spirants*). The place at which the obstruction, usually created by the tongue, occurs, is called the *point of articulation*. The points of articulation conventionally defined are: the lips, the teeth, the alveoli, the palate, the velum, the uvula, the pharynx, and

the glottis (the opening between the vocal chords, through which air passes during production of pulmonic egressive sounds) (Pullum–Ladusaw). Hence consonants are called *labial*, *dental*, *alveolar*, *palatal*, *velar*, *uvular*, *pharyngeal*, and *glottal* (cf. Lyons, 1968: 104–5).

continuant: a consonant that may be prolonged as long as the breath lasts without a change in quality (such as [s], [z], [f]).

diacritic signs: signs such as accents, umlaut, and the cedilla, which alter the value of a phonographic sign to which they are attached. The attachment of a diacritic mark to a phonographic sign creates a complex phonogram (Bennett, 1963: 104).

emphatic: used to describe the series of pharyngealized consonants common in Semitic languages.

fricative: a consonantal sound articulated in a manner involving drawing together of articulators to narrow a part of the oral tract radically enough to produce audible friction (Pullum–Ladusaw). The only fricative phoneme in classical Attic was σ = /s/.

glottal stop: a sound produced by first bringing the vocal chords together and then releasing them so that there is a sudden escape of air (Lyons, 1968: 115), such as in the solecism "a apple" or in one New York City dialectical pronunciation "boʾel" (= "bottle"). A familiar British example is "woʾ a loʾ o' liʾel boʾels." The glottal stop is represented graphically by the apostrophe, turned different ways by different users, which I write ʾ.

homorganic: having the same place of articulation (Pullum–Ladusaw).

identifying-mnemonic device: a semasiographic device to convey communication by means of pictures or visible marks, which help to record or identify certain persons or objects, as the drawing of a panther on a shield may mean something like, "this shield belongs to the person who killed the panther" (Gelb, 1963: 249).

indicative signs and devices: these include *sign indicators*, which place a sign in a certain class; *phonetic indicators* (or *complements*), which clarify the pronunciation of a potentially ambiguous sign; and *semantic indicators* (or *determinatives*), which give non-phonetic information about a sign (Bennett, 1963: 106–8).

labial: involving use of or contact with the lips (Pullum–Ladusaw).

labialized: articulated in a manner that secondarily involves rounding the lips (Pullum–Ladusaw).

laryngeal, *laryngealized:* articulated with creaky voice, i.e. with the back end of the vocal chords held together by the arytenoid cartilages so that only the other end can vibrate (Pullum–Ladusaw).

lexigraphy: visual symbols that make a permanent record of human speech (as opposed to visual symbols that communicate information through other means: = semasiography) (Bennett, 1963: 101).

logography: a writing in which a sign represents a significant element of speech,

ordinarily a word but sometimes more than a word and sometimes the smallest meaningful part of a word (Bennett, 1963: 101–2)

logo-syllabic: A logo-syllabic writing, such as Sumerian or Egyptian, uses both logographic and syllabic signs (Gelb, 1963: 250).

matres lectionis: the use of a sign with ordinarily syllabic value to suggest the quality of a vowel associated with another syllabic sign, as *yod* in some West Semitic writings is used to indicate the presence of the vowel [i].

palatal: relating to the hard palate or roof of the oral cavity (Pullum–Ladusaw).

palatalized: articulated in a manner that involves a secondary articulatory gesture of raising the blade of the tongue toward the hard palate (Pullum–Ladusaw).

palate: the roof of the mouth. The *hard palate* is the bony central region of the roof of the mouth; the *soft palate* or velum is the soft flap of tissue between it and the uvula (Pullum–Ladusaw).

pharynx: the section of the tract that extends from the nasal cavities to the larynx (which contains the vocal chords). The pharynx is where one gets a sore throat.

pharyngeal, pharyngealized: articulated in a manner which involves constriction of the pharynx by retraction of the root of the tongue (Pullum–Ladusaw).

phoneme: a class of sounds that are *significantly* different from other sounds, for example the class of /t/ sounds in English *tin*, *hat*, etc., or the class of /d/ sounds in *din*, *had*, etc. The voiceless /t/ phoneme and the voiced /d/ phoneme are different phonemes in English because *tin* has a different meaning from *din*, *hat* has a different meaning from *had*, and so forth. Phonemes are indicated graphically by being enclosed within slashes / /.

phonetic: A phonetic description of language regards "sounds" as physical entities which can be described without knowing to what language they belong (Lyons, 1968: 99). Phonetic sounds are indicated graphically by being enclosed within brackets [ ].

phonetic indicator (or phonetic complement): this attempts to clarify the pronunciation of a potentially ambiguous logogram or syllabogram by repeating phonetic information already implicit in the logogram, such as "nd" in "2nd."

phonogram: see phonography.

phonography: writing in which the signs represent nonsignificant elements of speech. When taken together, such signs, called *phonograms*, do represent significant elements of speech (Bennett, 1963: 102–3).

phonological: a *phonological* description of what one hears treats "sounds" in terms of such differences and similarities as are functional in the language, i.e. relevant for the purpose of communication (Lyons, 1968: 99). Such sounds are called "phonemes" and are indicated graphically by enclosure within slashes / /.

plosive: a pulmonic egressive stop consonant (Pullum–Ladusaw).

prosodic marks: these apply to lexigraphy in general. Prosodic marks refer to larger segments of text rather than to individual signs and include any means

whereby information may be imparted beyond that encoded in the lexigraphic system. Punctuation, word division, capitalization, italics, colored fonts, indentation and the like belong to this category.

pulmonic: relating to a mode of creating airflow in the vocal tract by the use of the respiratory muscles.

retroflexed (= rhotacized): a consonant pronounced with a secondary articulatory gesture involving tongue positioning similar to that employed for [r]-sounds (Pullum–Ladusaw).

*semantic indicator (*or *determinative):* gives nonphonetic information about the signification of a sign.

semasiography: human intercommunication by means of visible marks expressing meaning, but not necessarily linguistic elements (Gelb, 1963: 252).

sibilant: a fricative corresponding to a "hissing" sound (Pullum–Ladusaw).

sign indicator: a sign that indicates the character of the sign with which it is associated, as the period after "Engl." says that "Engl." is an abbreviation (Bennett, 1963: 107).

signary: a list of signs of a writing (Gelb, 1963: 253).

sonorant: a consonant articulated in a manner in which either the oral or the nasal passage is relatively free from obstruction: glides, nasals, laterals, and most [r]-sounds (Pullum–Ladusaw).

stop: a consonant articulated in a manner involving a complete blockage of airflow somewhere in the oral tract (Pullum–Ladusaw).

syllabary: a writing in which a sign normally stands for one or more syllables, open or closed, of the language. Thus, in Sumerian, one sign has the syllabic value [ba], another [re], or [da], still another [bala] (Gelb, 1963: 253).

uvula: the small appendage of soft tissue hanging down at the back of the mouth, at the lower end of the velum (Pullum–Ladusaw).

velarized: articulated in a manner which involves raising the tongue toward the velum (Pullum–Ladusaw).

velar: relating to the velum (Pullum–Ladusaw).

velum: the movable fold of tissue at the back of the roof of the mouth; the soft palate (Pullum–Ladusaw).

vowels: voiced sounds in the formation of which the air passes through the pharynx and the mouth without obstruction (by the tongue, lips, teeth, etc.). All speech-sounds other than vowels are defined as consonants (Lyons, 1968: 103).

voiced: articulated in a manner involving free vibration of the vocal chords under influence of pulmonic airflow through the larynx and pharynx (Pullum–Ladusaw).

voiceless: articulated in manner not involving free vibration of the vocal chords under influence of pulmonic airflow through the larynx and pharynx (Pullum–Ladusaw).

West Semitic Writing: the various writings used by peoples speaking Northwest

Semitic languages (Phoenician, Hebrew, Aramaic, etc.) and Southwest Semitic languages (North Arabic, South Arabic, Ethiopic, etc.) (Gelb, 1963: 122).

writing: any system of human intercommunication by means of a set of visible marks with a conventional reference (Bennett, 1963: 99–100).

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